



desert conservation  
PROGRAM



*Photo credit, Pinyon Environmental Engineering Resources, Inc*



2009-2011  
biennium progress report





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## INTRODUCTION

As required in Section 2.12.2.7 of the Clark County Multiple Species Habitat Conservation Plan, this document represents a composite final biennium progress report for the period July 1, 2009 through June 30, 2011. The biennial progress report is compiled every two years to document projects, activities, accomplishments, revenues and expenditures implemented or incurred during each two-year time frame pursuant to implementation of the Multiple Species Habitat Conservation Plan. The report provides a summary of progress by agencies and contractors implementing approved conservation projects, reports land disturbance activities and revenues generated as a result of those activities, and provides an accounting of expenses incurred and desert tortoise activities implemented during the two-year period.

### DESERT CONSERVATION PROGRAM HISTORY

The Clark County Desert Conservation Program was initiated in 1989 following the listing of the desert tortoise as threatened under the Endangered Species Act. The listing occurred as a result of illegal collection, vandalism, disease, urban growth, road construction and irresponsible off-road vehicle use throughout desert tortoise habitat. The Endangered Species Act prohibits the “take” of any threatened or endangered species listed pursuant to the Endangered Species Act. Take is broadly defined by the Endangered Species Act as equivalent to “harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect.”

The Desert Conservation Program is responsible for ensuring compliance with the Section 10(a)(1)(B) incidental take permit and Multiple Species Habitat Conservation Plan issued to Clark County and the Permittees (the cities of Boulder City, Henderson, Las Vegas, Mesquite and North Las Vegas; and the Nevada Department of Transportation) in 2001. The incidental take permit exempts the Permittees from the prohibited take provisions of the Endangered Species Act (Section 9). More specifically, the permit allows private property owners to develop land in Clark County without individual project consultations with the United States Fish and Wildlife Service.

The Multiple Species Habitat Conservation Plan and accompanying permit allow for the disturbance (development) of up to 145,000 acres of non-federal (private) lands in Clark County and provide coverage for the incidental take of covered species listed in the Permit. As a condition of the Permit and as defined in the Multiple Species Habitat Conservation Plan, the Permittees have agreed to mitigate future potential impacts on, and assist in the recovery of a broad range of other species residing in, all of the habitats located within Clark County, which should reduce the likelihood that additional covered species will need to be listed as threatened or endangered in the foreseeable future.

There are 78 federal and state listed species covered by the Multiple Species Habitat Conservation Plan, including the federally listed desert tortoise and Southwestern willow flycatcher, and the Nevada state listed Las Vegas bearpoppy. Clark County serves as Plan Administrator on behalf of the Permittees. The permit is valid for 30-years from the date of approval by the United States Fish and Wildlife Service.

### 2009-2011 BIENNIUM PROGRESS REPORT

Clark County is required to collect and expend mitigation funds to implement conservation actions in accordance with terms outlined in the Multiple Species Habitat Conservation Plan and associated incidental take permit. The Multiple Species Habitat Conservation Plan provides funding for conservation projects to various federal, state, and local agencies, nonprofit organizations and private contractors from mitigation fees collected pursuant to Section 10 of the Endangered Species Act and proceeds from the disposal of federal land in Clark County authorized by the Southern Nevada Public Lands Management Act. Some fees collected pursuant to Section 7 of the Endangered Species Act have been expended on behalf of the United States Fish and Wildlife Service.

### PROJECTS AND EXPENDITURES

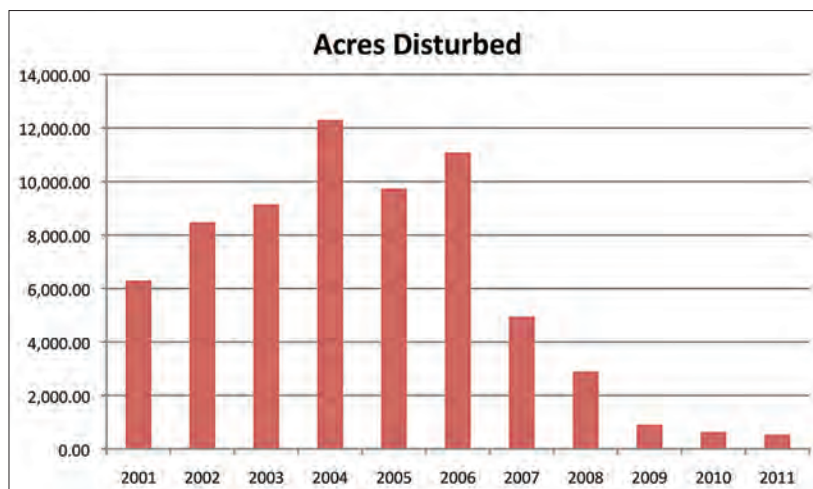
During the 2009-2011 biennium Clark County administered a total of 120 projects and/or contracts totaling \$15,419,679.85 to 51 agencies and contractors. See financial reports section of this document for a breakdown of expenditures for each funding source.

### LAND DISTURBANCE AND REVENUES GENERATED

In cooperation with the cities of Henderson, North Las Vegas, Las Vegas, Boulder City, Mesquite, and the Nevada Department of Transportation, Clark County tracks land disturbance through the permitting processes within each entity's jurisdiction. In summary, 1,760 acres were disturbed under Section 10 generating \$968,028.00 during the period from July 1, 2009 through June 30, 2011. During this period \$2,316,769.61 was generated in interest for Section 10.

Since 1992, Clark County has provided administration of the fees collected as mitigation for federal actions on federal lands pursuant to Section 7 of the Endangered Species Act. While Clark County has been a proud partner in the investment and dispersal of these funds, the sharp decline in revenue the Desert Conservation Program has been experiencing necessitated a review of the Program's operations and staffing in order to prioritize services, cut costs and optimize staffing allocations. As a result of this review, Clark County determined it could no longer accommodate the collection and disbursement of Section 7 funds and the Interlocal Agreement providing for this service was terminated on May 4, 2010. For the months within the biennium when funds were managed, \$1,146,242.47 was collected and \$121,902.04 was generated in interest for Section 7.

During the next biennium, the Permittees anticipate that disturbance activities will continue to be down significantly from previous bienniums. As the figure below demonstrates, the amount of disturbance has declined precipitously since 2007 as a result of the national economic recession. As a result, the Permittees are projecting revenues in the program during the 2011-2013 biennium to continue to be substantially lower than previous years.



| Year | Acres     |
|------|-----------|
| 2001 | 6,292.46  |
| 2002 | 8,475.58  |
| 2003 | 9,144.37  |
| 2004 | 12,298.22 |
| 2005 | 9,733.10  |
| 2006 | 11,083.12 |
| 2007 | 4,944.92  |
| 2008 | 2,894.04  |
| 2009 | 907.84    |
| 2010 | 632.48    |
| 2011 | 535.76    |

## PROJECT REPORTING PROCESS

Agencies and contractors receiving funding for the 2009-2011 biennium were required to submit quarterly reports and one final project report to the Desert Conservation Program Program Administrator. These reports are collected and posted on the Clark County Desert Conservation Program website ([http://www.clarkcountynv.gov/Depts/Desert Conservation Program/Pages/CurrentProjects.aspx](http://www.clarkcountynv.gov/Depts/Desert%20Conservation%20Program/Pages/CurrentProjects.aspx)). The Permittees are also required to maintain monthly Disturbance and Fee Reports per Section 2.12.2.2 of the Multiple Species Habitat Conservation Plan. The final draft of this biennium report will be presented to the Clark County Board of Commissioners and formally submitted to the FWS.

The 2009-2011 biennium progress report includes a brief summary of each project, including the name of the agency or contractor, project description, project status, contact information, funding awarded and contract term, where applicable.

The 2007-2009 Clark County Desert Conservation Program Biennium Progress Report reported the following projects as "in-progress" when the work was actually completed by the end of the biennium (06/31/2009): 2005-WEIR-553-3-A, Stay on the Trails Media Campaign; 2005-SWCA-570A, Monitoring for Covered At-Risk Butterfly Species in the Spring Mountains; 2005-DRI-574A "Science Advisor."

## USES FOR THIS REPORT

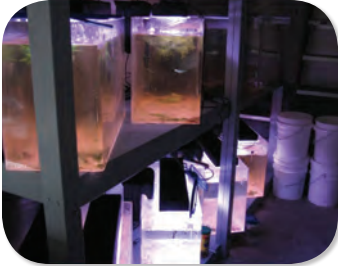
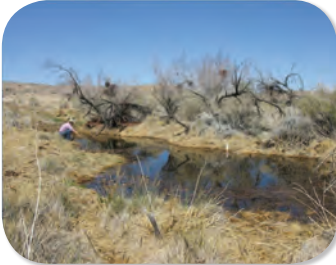
This report will be used to comply with the requirements of the Multiple Species Habitat Conservation Plan as outlined in Section 2.12.1 "Progress Report Implementation Plan and Budget" of the Multiple Species Habitat Conservation Plan, and to reaffirm Clark County's commitment as a steward of the plan and the Desert Conservation Program. In addition, the report will be used to clearly benchmark accomplishments, recommendations and fiscal activities of the program. Finally, it will aid in planning future program activities as the Desert Conservation Program matures and provide a benchmark from which to measure future progress.

To obtain further information about the Clark County Desert Conservation Program, please write to Clark County Department of Air Quality and Environmental Management, 500 S. Grand Central Parkway, Las Vegas, NV 89155, call at (702) 455-5942, or visit the website at: [http://www.clarkcountynv.gov/depts/Desert Conservation Program/Pages/default.aspx](http://www.clarkcountynv.gov/depts/Desert%20Conservation%20Program/Pages/default.aspx).





# MASTER LIST OF PROJECTS





# CLARK COUNTY DESERT CONSERVATION PROGRAM 2009-2011 BIENNIUM PROGRESS REPORTS

Sorted by project number

| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | START      | END        | AMOUNT AWARDED          | STATUS AS OF 06/30/11     | BN REPORT STATUS/NOTES | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|--|------------|------------|-------------------------|---------------------------|------------------------|-----------------|
| 475            | 2005-NPS-475            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Peregrine Falcon Monitoring at Lake Mead National Recreation Area                  | 03/04/2008 | 06/04/2010 | 30,120.00               | Completed                 | n/a                    | Yes             |
| 476            | 2005-NPS-476            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Relict Leopard Frog Monitoring and Management                                      | 09/04/2007 | 12/04/2010 | 333,000.00              | Completed                 | n/a                    | Yes             |
| 497A           | 2005-CC-497A            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Rare Plant Inventories   | 02/15/2007 | 02/15/2012 | 414,356.80 (Budgeted)   | In Progress               | n/a                    | No              |
| 497B           | 2005-JS-497B            | SNPLMA R6      | JONES AND STOKES, ICF INTERNATIONAL          | Rare Plant Inventories   | 03/17/2009 | 03/31/2011 | 414,356.00              | Completed                 | n/a                    | Yes             |
| 499            | 2005-BLM499             | SNPLMA R6      | BUREAU OF LAND MANAGEMENT                    | Support of Virgin River Conservation Management Strategy                           | n/a        | n/a        | 282,285.30              | Withdrawn and Deobligated | n/a                    | No              |
| 502A           | 2005-NSHE-502A          | SNPLMA R6      | NEVADA SYSTEM OF HIGHER EDUCATION            | Sediment Transport of Source Materials to White-margined Penstemon                 | 05/01/2007 | 04/01/2010 | 798,553.00              | Completed                 | n/a                    | Yes             |
| 503            | 2005-BLM-503            | SNPLMA R6      | BUREAU OF LAND MANAGEMENT                    | Roads Monitoring on BLM Lands  | 01/05/2010 | 12/15/2011 | 458,200.00              | In Progress               | n/a                    | Yes             |
| 525            | 2005-NPS-525            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Lake Mead Geographic Information System and Data Management Support                | 01/02/2008 | 02/14/2012 | 312,788.00              | In Progress               | n/a                    | Yes             |
| 526            | 2005-NPS-526            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Monitoring of Illegal Ground Disturbance   | 03/04/2008 | 06/30/2010 | 105,287.00              | Completed                 | n/a                    | Yes             |
| 529            | 2005-NPS-529            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Monitoring of Road Conditions and Signs  | 03/04/2008 | 06/30/2010 | 114,737.00              | Completed                 | n/a                    | Yes             |
| 532            | 2005-NPS-532            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Threats Research and Monitoring on Invasive Species Sahara Mustard                 | 09/01/2009 | 01/01/2012 | 88,674.00               | In Progress               | n/a                    | Yes             |
| 535            | 2005-NPS-535            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Inventory, Research, and Monitoring for Covered Plant Species                      | 10/02/2007 | 06/10/2010 | 347,054.00              | Completed                 | n/a                    | Yes             |
| 536            | 2005-NPS-536            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Inventory and Research for Watch and Evaluation Plant Species                      | 02/05/2008 | 06/30/2010 | 163,277.40              | Completed                 | n/a                    | Yes             |
| 537            | 2005-NPS-537            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Interagency Weed Sentry Project  | 09/18/2007 | 02/18/2010 | 905,688.00              | Completed                 | n/a                    | Yes             |
| 540            | 2005-NPS-540            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Bald Eagle Monitoring  | 01/02/2008 | 04/10/2010 | 21,589.00               | Completed                 | n/a                    | Yes             |
| 542            | 2005-NPS-542            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Historical and Current Assessment of Six Covered and Three Evaluation Bird Species | 10/16/2007 | 11/06/2010 | 219,903.00              | Completed                 | n/a                    | Yes             |
| 544P           | 2005-CC-544P            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Conservation Program Administration   | 02/14/2007 | n/a        | 3,646,939.00 (Budgeted) | In Progress               | n/a                    | Yes             |

| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | START      | END        | AMOUNT AWARDED        | STATUS AS OF 06/30/11 | BN REPORT STATUS/NOTES           | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|--|------------|------------|-----------------------|-----------------------|----------------------------------|-----------------|
| 546            | 2005-CC-546             | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management Plan                                   | 07/01/2005 | n/a        | 30,000.00 (Budgeted)  | Completed             | Umbrella Project Number See 546A | No              |
| 546A           | 2005-WATASH-546A        | S10 07-09      | WATASH LLC                                   | Boulder City Conservation Easement Management Plan                                   | 01/20/2008 | 10/20/2009 | 30,000.00             | Completed             | n/a                              | Yes             |
| 549            | 2005-NDOW-549           | SNPLMA R6      | NEVADA DEPARTMENT OF WILDLIFE                | Peregrine Falcon Monitoring  | 04/07/2009 | 03/31/2011 | 25,611.30             | Completed             | n/a                              | Yes             |
| 551            | 2005-USGS-551           | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY              | Effects of Fuel Management Treatment in the Spring Mountain National Recreation Area | 03/04/2008 | 08/31/2010 | 321,501.00            | Completed             | n/a                              | Yes             |
| 552            | 2005-UCSB-552           | SNPLMA R6      | UNIVERSITY OF CALIFORNIA, SANTA BARBARA      | Effectiveness Monitoring of Wetlands and Riparian Restoration Treatments             | 12/16/2008 | 07/01/2011 | 946,389.00            | Completed             | n/a                              | Yes             |
| 553            | 2005-CC-553             | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Media and Outreach Development   | 02/27/2007 | n/a        | 240,000.00 (Budgeted) | In Progress           | Umbrella Project Number          | Yes             |
| 553-3-B        | 2005-BLVDS-553-3-B      | SNPLMA R6      | BLVDS MAGAZINE                               | Stay on the Trails Print Advertisements  | 03/03/2009 | 12/31/2010 | 3,510.00              | Completed             | See 553                          | No              |
| 553-3-F        | 2005-IVRJ-553-3-F       | SNPLMA R6      | LAS VEGAS REVIEW-JOURNAL                     | Print Advertising Campaign 2010-11   | 07/13/2010 | 06/30/2011 | 20,741.40             | Completed             | See 553                          | No              |
| 553-3-G        | 2005-KNPR-553-3-G       | SNPLMA R6      | KNPR (NEVADA PUBLIC RADIO)                   | Radio and Print Advertising Campaign 2010-11   | 08/12/2010 | 06/30/2011 | 20,000.00             | Completed             | See 553                          | No              |
| 553-3-H        | 2005-AERO-553-3-H       | SNPLMA R6      | AEROTECH NEWS AND REVIEW                     | Nellis Air Force Base Advertising Campaign   | 11/19/2010 | 06/30/2011 | 20,000.00             | Completed             | See 553                          | No              |
| 553-4-A        | 2005-JOSHUATREE-553-4-A | SNPLMA R6      | JOSHUA TREE PRODUCTIONS                      | Desert Conservation Program Video and Photos   | 04/04/2011 | 11/30/2011 | 5,000.00              | In Progress           | See 553                          | No              |
| 553-6-H        | 2005-BLVD-553-6-H       | SNPLMA R6      | BLVDS MAGAZINE                               | Print Advertising Campaign 2010-11   | 08/12/2010 | 06/30/2011 | 9,900.00              | Completed             | See 553                          | No              |
| 553-6-J        | 2005-COX-553-6-J        | SNPLMA R6      | COX MEDIA LLC                                | Mojave Max Television Campaign Spring 2011   | 12/01/2010 | 04/03/2011 | 10,578.75             | Completed             | See 553                          | No              |
| 553-6-K        | 2005-WOOD-553-6-K       | SNPLMA R6      | NATALIE WOOD                                 | Mojave Max Website Development   | 06/01/2011 | 11/30/2011 | 2,000.00              | In Progress           | See 553                          | No              |
| 553-8-A        | 2005-STEVENKIDS-553-8-B | SNPLMA R6      | STEVE-N-KIDS                                 | Mojave Max Mascot Appearances  | 01/28/2008 | 06/30/2010 | 10,000.00             | Completed             | See 553                          | No              |
| 553-8-B        | 2005-STEVENKIDS-553-9-A | SNPLMA R6      | STEVE-N-KIDS                                 | Mojave Max Mascot Appearances  | 03/17/2010 | 11/30/2011 | 23,000.00             | In Progress           | See 553                          | No              |
| 557            | 2005-NNHP-557           | SNPLMA R6      | NEVADA NATURAL HERITAGE PROGRAM              | Sensitive Species Data Management  | 06/16/2009 | 12/30/2011 | 180,000.00            | In Progress           | n/a                              | Yes             |

| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | START      | END        | AMOUNT AWARDED          | STATUS AS OF 06/30/11 | BN REPORT STATUS/NOTES           | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|--|------------|------------|-------------------------|-----------------------|----------------------------------|-----------------|
| 559            | 2005-CC-559             | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Mojave Max Emergence Contest Partnership and Partnership Development | 02/14/2007 | n/a        | 440,000.00 (Budgeted)   | In Progress           | Umbrella Project Number See 559A | No              |
| 559A           | 2005-RRCIA-559A         | SNPLMA R6      | RED ROCK CANYON INTERPRETIVE ASSOCIATION     | Mojave Max Education Program Development                             | 09/04/2007 | 12/31/2011 | 400,000.00              | In Progress           | n/a                              | Yes             |
| 561            | 2005-TNC-561            | SNPLMA R6      | THE NATURE CONSERVANCY                       | Muddy River Property Management Acquisition and Partner Coordination | 04/01/2008 | 12/31/2010 | 217,000.00              | Completed             | See 561B                         | No              |
| 561B           | 2005-CC-561B            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Muddy River Property Management and Acquisition                      | 02/27/2007 | n/a        | 286,726.00 (Budgeted)   | Completed             | Umbrella Project Number          | Yes             |
| 561C           | 2005-MCCOR-561C         | SNPLMA R6      | L J MCCORMICK ENTERPRISES INC                | Alamo Property Fuel Removal  | 04/27/2011 | 06/30/2011 | 21,357.00               | Completed             | See 561B                         | No              |
| 561E           | 2005-GOTHIC-561E        | SNPLMA R6      | GOTHIC LANDSCAPE INC                         | Henrie Property Fuel Removal   | 04/21/2011 | 06/30/2011 | 6,043.00                | Completed             | See 561B                         | No              |
| 561F           | 2005-WHEELER-561F       | SNPLMA R6      | WHEELER'S ELECTRIC INC                       | Perkins Pump Timer Installation                                      | 05/16/2011 | 06/30/2011 | 580.00                  | Completed             | See 561B                         | No              |
| 562            | 2005-CC-562             | S7 05-07       | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Retro Fencing Projects   | 07/01/2005 | n/a        | 792,000.00 (Budgeted)   | Completed             | Umbrella Project Number          | Yes             |
| 562E           | 2005-NDF-562E           | S7 05-07       | NEVADA DIVISION OF FORESTRY                  | Fencing  | 08/16/2008 | 11/15/2010 | 275,000.00              | Completed             | See 562                          | No              |
| 563            | 2005-CC-563             | S7 05-07       | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | New Fencing Projects   | 07/01/2005 | n/a        | 1,500,000.00 (Budgeted) | Completed             | Umbrella Project Number See 562  | No              |
| 563A           | 2005-AMERICANFENCE-563A | S7 05-07       | AMERICAN FENCE COMPANY                       | Tortoise Fencing Materials   | 02/28/2008 | 03/19/2011 | 247,940.00              | Completed             | See 562E                         | No              |
| 564            | 2005-CC-564             | S7 05-07       | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Fencing Monitoring and Maintenance Projects                          | 07/01/2005 | n/a        | 80,000.00 (Budgeted)    | Completed             | Umbrella Project Number See 562  | No              |
| 567            | 2005-UNR-567            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO                   | Epidemiology of Desert Tortoise                                      | 07/17/2007 | 11/01/2009 | 779,726.00              | Completed             | n/a                              | Yes             |
| 570B           | 2005-CC-570B            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Butterfly Monitoring in the Spring Mountains                         | 02/15/2007 | n/a        | 127,270.00 (Budgeted)   | Completed             | Umbrella project Number          | No              |
| 570C           | 2005-PINYON-570C        | SNPLMA R6      | PINYON ENVIRONMENTAL ENGINEERING             | Butterfly Monitoring and Inventories                                 | 01/19/2010 | 11/15/2011 | 97,566.00               | In Progress           | n/a                              | Yes             |

| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE   | START      | END        | AMOUNT AWARDED          | STATUS AS OF 06/30/11 | BN REPORT STATUS/NOTES     | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|---|------------|------------|-------------------------|-----------------------|----------------------------|-----------------|
| 572            | 2005-TNC-572            | SNPLMA R6      | THE NATURE CONSERVANCY                       | Effectiveness Monitoring for Saltcedar and Knapweed Control                                   | 03/18/2008 | 05/31/2010 | 594,991.00              | Completed             | n/a                        | Yes             |
| 574            | 2005-CC-574             | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management Program   | 02/14/2007 | 02/14/2012 | 2,950,335.00 (Budgeted) | In Progress           | n/a                        | Yes             |
| 574A           | 2005-DRI-574A           | SNPLMA R6      | DESERT RESEARCH INSTITUTE                    | Science Advisor   | 06/05/2007 | 06/30/2009 | 1,700,000.00            | Completed             | No work done this biennium | No              |
| 574B           | 2005-USGS-574B          | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY              | Expert Advice   | 07/06/2007 | 10/31/2011 | 430,000.00              | In Progress           | See 574                    | No              |
| 574D           | 2005-REMORTEL-574D      | SNPLMA R6      | REMORTEL                                     | GIS Soils Data Professional Services  | 11/12/2007 | 11/12/2009 | 24,000.00               | Completed             | See 574                    | No              |
| 574L           | 2005-TSG-574L           | SNPLMA R7      | TERRASPECTRA GEOMATIC                        | Remote Sensing  | 09/01/2008 | 09/01/2009 | 25,000.00               | Completed             | See 574                    | No              |
| 574M           | 2005-SOUNDSCIENCE-574M  | SNPLMA R6      | SOUND SCIENCE LLP                            | Peer Review for Multiple Species Habitat Conservation Plan Documents                          | 03/01/2009 | 12/31/2011 | 22,000.00               | In Progress           | See 574                    | No              |
| 574O           | 2005-CAP-574O           | SNPLMA R6      | CAPRICORN ENVIRONMENTAL, INC.                | Peer Review Consultant  | 12/29/2009 | 06/30/2010 | 5,000.00                | Completed             | See 574                    | No              |
| 574P           | 2005-TSG-574P           | SNPLMA R6      | TERRASPECTRA GEOMATIC                        | Peer Review of Geographic Information System Data and Methods                                 | 03/01/2010 | 12/30/2011 | 23,000.00               | In Progress           | See 574                    | No              |
| 574Q           | 2005-TSG-574Q           | SNPLMA R6      | TERRASPECTRA GEOMATIC                        | Remote Sensing  | 01/06/2011 | 05/31/2011 | 15,000.00               | Completed             | See 574                    | No              |
| 574T           | 2005-PINYON-574T        | SNPLMA R6      | PINYON ENVIRONMENTAL ENGINEERING             | Butterfly Monitoring Phase Two  | 01/09/2010 | 11/15/2011 | 11,866.00               | In Progress           | See 570C                   | No              |
| 575            | 2005-UNLV-575           | SNPLMA R7      | UNIVERSITY OF NEVADA, LAS VEGAS              | Connectivity of Leopard Frog Populations  | 08/07/2007 | 03/19/2010 | 147,836.00              | Completed             | n/a                        | Yes             |
| 577            | 2005-PIC-577            | SNPLMA R6      | PARTNERS IN CONSERVATION                     | Partners in Conservation and Volunteer Support for Bureau of Land Management Roads Monitoring | 08/04/2009 | 06/30/2011 | 254,588.00              | Completed             | n/a                        | Yes             |
| 578            | 2005-UNR-578            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO                   | Ecosystem Indicators: Change Detection  | 10/07/2008 | 08/31/2011 | 1,300,000.00            | In Progress           | n/a                        | Yes             |
| 580            | 2005-USGS-580           | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY              | Long Term Conservation Strategy for Palmers Chipmunk  | 02/09/2008 | 12/19/2010 | 276,447.00              | Completed             | n/a                        | Yes             |
| 581            | 2005-GBBO-581           | SNPLMA R6      | GREAT BASIN BIRD OBSERVATORY                 | Developing Habitat Models and Monitoring Techniques for Nine Rare Birds                       | 10/16/2007 | 12/31/2013 | 719,939.00              | In Progress           | n/a                        | Yes             |
| 582            | 2005-USGS-582           | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY              | Population Status and Reproductive Ecology of the Western Burrowing Owl                       | 11/20/2007 | 06/20/2010 | 415,051.00              | Completed             | n/a                        | Yes             |

| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | START      | END        | AMOUNT AWARDED        | STATUS AS OF 06/30/11                | BN REPORT STATUS/NOTES                 | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|--|------------|------------|-----------------------|--------------------------------------|--|-----------------|
| 583            | 2005-USDA-583           | SNPLMA R6      | UNITED STATES DEPARTMENT OF AGRICULTURE      | Native Bee Pollinators Status and Plant Relationships  | n/a        | n/a        | 261,696.00            | De-obligated                         | n/a                                    | No              |
| 585            | 2005-UNR-585            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO                   | Desert Tortoise Monitoring   | 04/30/2007 | 11/02/2009 | 1,217,071.76          | Completed                            | n/a                                    | Yes             |
| 585A           | 2005-USFWS-585A         | SNPLMA R6      | UNITED STATES FISH AND WILDLIFE SERVICE      | Desert Tortoise Monitoring   | 09/18/2007 | 10/18/2009 | 1,372,218.00          | Completed                            | n/a                                    | Yes             |
| 602A           | 2005-NTU-602A           | SNPLMA R6      | UNIVERSITY OF NORTH TEXAS                    | Impact of Nutritional Stress on Upper Respiratory Tract Disease and Immune Function in the Desert Tortoise | 03/24/2009 | 04/15/2011 | 698,480.00            | Terminated and partially deobligated | Terminated                             | Yes             |
| 605            | 2005-CC-605             | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Volunteer Resource Stewardship Pilot Program   | 02/14/2007 | n/a        | 250,000.00 (Budgeted) | Not Started                          | Umbrella Project Number                | No              |
| 606            | 2005-CC-606             | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Buckwheat and Bearpoppy Inventory  | 02/14/2007 | n/a        | 55,000.00 (Budgeted)  | Completed                            | Umbrella Project Number See 606A       | No              |
| 606A           | 2005-JS-606A            | SNPLMA R6      | JONES AND STOKES, ICF INTERNATIONAL          | Buckwheat and Bearpoppy Inventory  | 03/17/2009 | 02/10/2010 | 55,000.00             | Completed                            | n/a                                    | Yes             |
| 609            | 2005-CC-609             | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management of Information Gathering and Analysis Projects   | 02/07/2007 | n/a        | 500,000.00 (Budgeted) | In Progress                          | Umbrella Project Number See 609 Series | No              |
| 609A           | 2005-NPS-609A           | SNPLMA R6      | NATIONAL PARK SERVICE                        | Conceptual and Habitat Models of Six Covered and Three Evaluation Bird Species                             | 10/16/2007 | 11/06/2010 | 133,500.00            | Completed                            | See 542                                | No              |
| 609B           | 2005-NPS-609B           | SNPLMA R6      | NATIONAL PARK SERVICE                        | Bald Eagle Habitat Modeling  | 01/02/2008 | 04/02/2010 | 18,135.00             | Completed                            | See 540                                | No              |
| 609C           | 2005-NPS-609C           | SNPLMA R6      | NATIONAL PARK SERVICE                        | Habitat Model for Peregrine Falcon   | 03/04/2008 | 06/04/2010 | 14,853.00             | Completed                            | See 475                                | No              |
| 609D           | 2005-NDOW-609D          | SNPLMA R6      | NEVADA DEPARTMENT OF WILDLIFE                | Peregrine Falcon Modeling  | 04/07/2009 | 03/31/2011 | 14,000.00             | Completed                            | See 549                                | No              |
| 609E           | 2005-NPS-609E           | SNPLMA R6      | NATIONAL PARK SERVICE                        | Technical Conditions   | 04/14/2009 | 11/01/2010 | 23,500.00             | Completed                            | See 535                                | No              |
| 609F           | 2005-UNLV-609F          | SNPLMA R6      | UNIVERSITY OF NEVADA, LAS VEGAS              | Gypsum Soils Analysis Technical Conditions   | 09/15/2009 | 10/01/2011 | 340,000.00            | In Progress                          | n/a                                    | Yes             |
| 609G           | 2005-HRA-609G           | SNPLMA R6      | HRA, INC.                                    | Archaeological Services  | 09/28/2009 | 06/30/2010 | 6,000.00              | Completed                            | See 609F                               | No              |
| 705            | 2007-BLM-705            | SNPLMA R8      | BUREAU OF LAND MANAGEMENT                    | Road Designation and Monitoring  | n/a        | n/a        | 223,061.00            | Not Started                          | n/a                                    | No              |

| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | START      | END        | AMOUNT AWARDED          | STATUS AS OF 06/30/11 | BN REPORT STATUS/NOTES  | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|--|------------|------------|-------------------------|-----------------------|-------------------------|-----------------|
| 714            | 2007-CC-714             | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management Plan         | 07/01/2007 | n/a        | 300,000.00 (Budgeted)   | Completed             | See 802                 | No              |
| 714F           | 2007-BOYD-714F          | S10 07-09      | BOYD CONSULTANTS LLC                         | Boulder City Conservation Easement Right of Way Consulting | 05/04/2009 | 09/11/2009 | 12,650.00               | Completed             | See 802                 | No              |
| 714G           | 2007-OLIVER-714G        | S10 07-09      | ROBERT OLIVER                                | Boulder City Law Enforcement Training                      | 06/19/2009 | 07/31/2009 | 5,000.00                | Completed             | See 802                 | No              |
| 719            | 2007-CC-719             | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Pickup Service, Transfer and Holding       | 07/01/2007 | na/        | 800,000.00 (Budgeted)   | In Progress           | Umbrella Project Number | Yes             |
| 719J           | 2007-USFWS-719J         | S10 07-09      | UNITED STATES FISH AND WILDLIFE SERVICE      | Intake and Processing of Desert Tortoises                  | 12/18/2007 | 08/31/2009 | 350,647.00              | Completed             | See 719                 | No              |
| 719L           | 2007-KLA-719L           | S10 07-09      | KNIGHT AND LEAVITT ASSOCIATION               | Desert Tortoise Pick Up Service                            | 09/02/2008 | 09/10/2009 | 104,000.00              | Completed             | See 719                 | No              |
| 719M           | 2007-KLA-719M           | S10 07-09      | KNIGHT AND LEAVITT ASSOCIATION               | Desert Tortoise Pick Up Service                            | 09/11/2009 | 02/15/2012 | 104,000.00              | In Progress           | See 719                 | No              |
| 722            | 2007-CC-722             | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Acquired Land and Water Rights                             | 06/30/2007 | n/a        | 150,000.00 (Budgeted)   | In Progress           | Umbrella Project Number | Yes             |
| 722A           | 2007-BUSCHELMAN-722A    | S10 07-09      | BUSCHELMAN CONSULTING, INC                   | Surface Water Rights Consulting                            | 12/17/2007 | 01/31/2012 | 49,600.00               | In Progress           | See 722                 | No              |
| 722B           | 2007-ATS-722B           | S10 07-09      | AFFORDABLE TREE SERVICE                      | Muddy River Properties Firebreak and Tree Removal          | 01/04/2011 | 04/20/2011 | 13,500.00               | Completed             | See 722                 | No              |
| 785            | 2007-USFWS-785          | S10 07-09      | UNITED STATES FISH AND WILDLIFE SERVICE      | Desert Tortoise Monitoring 2009                            | 10/29/2008 | 03/30/2010 | 983,000.00              | Completed             | n/a                     | Yes             |
| 800            | 2009-CC-800             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Clark County Administration S10 FY09-10                    | 07/01/2009 | n/a        | 2,053,617.00 (Budgeted) | Completed             | See 544P                | No              |
| 801            | 2009-CC-801             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management Program                                | 07/01/2009 | n/a        | 974,950.00 (Budgeted)   | In Progress           | See 574                 | No              |
| 801A           | 2009-ECO-801A           | S10 09-11      | ENDURING CONSERVATION OUTCOMES, LLC          | Multiple Species Habitat Conservation Plan Science Advisor | 10/06/2009 | 01/30/2013 | 501,105.00              | In Progress           | n/a                     | Yes             |
| 801B           | 2009-UNLV-801B          | S10 09-11      | UNIVERSITY OF NEVADA, LAS VEGAS              | Wesley E Niles Herbarium Services                          | 11/19/2010 | 12/31/2011 | 5,000.00                | In Progress           | See 801A                | No              |



| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | START      | END        | AMOUNT AWARDED        | STATUS AS OF 06/30/11 | BN REPORT STATUS/NOTES           | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|--|------------|------------|-----------------------|-----------------------|----------------------------------|-----------------|
| 802            | 2009-CC-802             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management, Maintenance and Law Enforcement | 07/01/2009 | n/a        | 340,000.00 (Budgeted) | In Progress           | Umbrella Project Number          | Yes             |
| 802A           | 2009-BC-802A            | S10 09-11      | CITY OF BOULDER CITY                         | Boulder City Conservation Easement Law Enforcement                             | 06/16/2009 | 06/15/2011 | 261,906.00            | Completed             | See 802                          | No              |
| 803            | 2009-CC-803             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Hotline and Pick-Up Service                                    | 07/01/2009 | na/        | 595,000.00 (Budgeted) | Not Started           | n/a                              | No              |
| 804            | 2009-CC-804             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Fencing  | 07/01/2009 | n/a        | 425,000.00 (Budgeted) | In Progress           | Umbrella Project Number See 562  | No              |
| 804A           | 2009-NDF-804A           | S10 09-11      | NEVADA DIVISION OF FORESTRY                  | Fencing Installation and Maintenance   | 04/19/2011 | 03/31/2012 | 40,000.00             | In Progress           | See 562E                         | No              |
| 805            | 2009-CC-805             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Management of Acquired Properties and Water Rights                             | 07/01/2009 | n/a        | 255,000.00 (Budgeted) | In Progress           | Umbrella Project Number          | Yes             |
| 805G           | 2009-BOYD-805G          | S10 09-11      | BOYD CONSULTANTS LLC                         | Multiple Species Habitat Conservation Plan Reserve Plan Research               | 09/05/2010 | 06/30/2011 | 34,975.00             | Completed             | See 805                          | No              |
| 805H           | 2009-BLM-805H           | S10 09-11      | BUREAU OF LAND MANAGEMENT                    | Virgin River Cadastral Survey  | 06/21/2011 | 12/31/2012 | 150,000.00            | In Progress           | See 805                          | No              |
| 805I           | 2009-NANCE-805I         | S10 09-11      | DOUG NANCE                                   | Muddy River Property Management  | 01/15/2011 | 01/30/2012 | 19,415.00             | In Progress           | See 805                          | No              |
| 806            | 2009-CC-806             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Public Information and Education   | 07/01/2009 | n/a        | 170,000.00 (Budgeted) | Not Started           | Umbrella Project Number          | No              |
| 808            | 2009-CC-808             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Assessment of Post-Fire Rehab of Desert Tortoise Habitat in Clark County       | 07/01/2009 | n/a        | 400,000.00 (Budgeted) | In Progress           | Umbrella Project Number See 808A | No              |
| 808A           | 2009-USGS-808A          | S10 09-11      | UNITED STATES GEOLOGICAL SURVEY              | Assessment of Post-Fire Rehab of Desert Tortoise Habitat in Clark County       | 04/06/2010 | 06/30/2013 | 400,000.00            | In Progress           | n/a                              | Yes             |
| 809            | 2009-CC-809             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Restoration of Desert Tortoise and Gypsum Habitat                              | 07/01/2009 | n/a        | 300,000.00 (Budgeted) | Not Started           | n/a                              | No              |
| 810            | 2009-CC-810             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Relict Leopard Frog Conservation   | 07/01/2009 | n/a        | 270,000.00 (Budgeted) | In Progress           | Umbrella Project Number See 810A | No              |
| 810A           | 2009-NPS-810A           | S10 09-11      | NATIONAL PARK SERVICE                        | Relict Leopard Frog Conservation   | 01/18/2011 | 07/31/2014 | 270,000.00            | In Progress           | n/a                              | Yes             |

| PROJECT NUMBER | EXTENDED PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE   | START      | END        | AMOUNT AWARDED          | STATUS AS OF 06/30/11 | BN REPORT STATUS/ NOTES         | REPORT INCLUDED |
|----------------|-------------------------|----------------|--|---|------------|------------|-------------------------|-----------------------|---------------------------------|-----------------|
| 811            | 2009-CC-811             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Monitoring 2011   | 07/01/2009 | n/a        | 386,260.00 (Budgeted)   | Not Started           | n/a                             | No              |
| 812            | 2009-CC-812             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Virgin River Land Acquisition   | 07/01/2009 | 06/30/2011 | 25,000.00 (Budgeted)    | Completed             | See 805                         | No              |
| 813            | 2009-CC-813             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Expansion  | 07/01/2009 | n/a        | 70,000.00 (Budgeted)    | Completed             | See 802                         | No              |
| 813A           | 2009-FREE-813A          | S10 09-11      | FREE AND ASSOCIATES                          | Boulder City Conservation Easement Appraisal Fee  | 02/23/2011 | 06/30/2011 | 4,950.00                | Completed             | See 802                         | No              |
| 813B           | 2009-TRI-813B           | S10 09-11      | TRI STATE SURVEYING LTD                      | Boulder City Conservation Easement Expansion Survey   | 10/14/2009 | 06/30/2010 | 838.00                  | Completed             | See 802                         | No              |
| 814            | 2009-CC-814             | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Permit Amendment 09-11  | 07/01/2009 | n/a        | 660,000.00 (Budgeted)   | In Progress           | n/a                             | Yes             |
| 814A           | 2009-SMART-814A         | S10 09-11      | SMART GROWTH ENGINEERING                     | Development Process Analysis  | 03/07/2011 | 09/30/2011 | 44,500.00               | In Progress           | See 814                         | No              |
| 910            | 2011-CCBCCE-910         | S10 11-13      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management, Maintenance and Law Enforcement                      | 06/21/2011 | n/a        | 453,000.00 (Budgeted)   | In Progress           | See 802                         | No              |
| 910A           | 2011-BC-910A            | S10 11-13      | CITY OF BOULDER CITY                         | Boulder City Conservation Easement Law Enforcement  | 06/21/2011 | 08/31/2013 | 225,378.00              | In Progress           | See 802                         | No              |
| 1011           | 2007-CC-1011            | SNPLMA R8      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Amendment of the Clark County Multiple Species Habitat Conservation Plan and Incidental Take Permit | 09/05/2008 | n/a        | 2,672,120.00 (Budgeted) | In Progress           | See 814                         | No              |
| 1011A          | 2007-NICHOLSON-1011A    | SNPLMA R8      | RUTH NICHOLSON, CPF                          | Meeting, Facilitation Permit Amendment  | 07/15/2008 | 06/30/2010 | 385,000.00              | Completed             | See 814                         | No              |
| 1011B          | 2007-PBSJ-1011B         | SNPLMA R8      | PBS AND J                                    | Biological Environmental Consultant   | 01/20/2009 | 08/31/2013 | 623,320.00              | In Progress           | See 814                         | No              |
| 1011E          | 2007-H2O-1011E          | SNPLMA R8      | H2OUTREACH, LLC                              | Meeting Facilitation and Process Consultation   | 07/01/2010 | 06/30/2011 | 42,900.00               | Completed             | See 814                         | No              |
| 1012           | 2007-USFWS-1012         | SNPLMA R8      | UNITED STATES FISH AND WILDLIFE SERVICE      | Desert Tortoise Monitoring  | n/a        | n/a        | 1,320,000.00            | Not Started           | n/a                             | No              |
| 1014           | 2007-DCP-1014           | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Permit Amendment Administration   | 07/01/2007 | n/a        | 1,320,000.00 (Budgeted) | In Progress           | Umbrella Project Number See 814 | No              |
| 1014A          | 2007-NICHOLSON-1014A    | S10 07-09      | RUTH NICHOLSON, CPF                          | Meeting Facilitation for DT Task Force  | 07/15/2008 | 06/30/2010 | 280,470.00              | Completed             | See 814                         | No              |
| 1014B          | 2007-EMS-1014B          | S10 07-09      | EBBINS MOSER AND SKAGGS, LLP                 | Permit Amendment Legal Counsel  | 07/15/2008 | 06/30/2012 | 913,000.00              | In Progress           | See 814                         | No              |

# PROJECT REPORTS





**LEAD AGENCY**  
National Park Service

**PROJECT TITLE AND NUMBER**

**Peregrine Falcon Monitoring at Lake Mead National Recreation Area**

2005-NPS-475

SNPLMA R6

**Habitat Model for Peregrine Falcon**

2005-NPS-609C

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of project 475 was to collect demographic data on nesting pairs of peregrine falcons in Lake Mead National Recreation Area. The overall goal of the project was to determine the current status of the species within this region of Clark County. Project 609C developed conceptual models and a habitat suitability model and associated maps for peregrine falcons in Lake Mead National Recreation Area. In the early 1970s, peregrine falcons were listed as endangered under the Endangered Species Act. Peregrines have rebounded in recent years and were removed from the list of endangered and threatened species in 1999. Peregrines continue to be susceptible to environmental contaminants, and the United States Fish and Wildlife Service recommends that populations be monitored through 2015. The majority of known nesting sites for peregrines in Nevada are located along the shorelines of Lake Mead and Lake Mohave. This project was conducted in partnership with the Nevada Division of Wildlife.

**PROJECT STATUS - Completed**

- Conducted multiple visits at each known peregrine territory following a protocol consistent with recommendations from the United States Fish and Wildlife Service;
- Developed and tested an experimental survey method to more quickly determine the presence of territorial peregrines;
- Collected data on territory occupancy and reproductive success;
- Monitored five territories throughout the non-breeding period to gain insight into year-round peregrine habitat use;
- Documented increases in the total number of known peregrine falcon territories at Lake Mead National Recreation Area reaching a high of 35 identified territories in 2009 (however, the increase in territories coincides with increased search efforts);
- Detected at least 55 adults in 2009 and 61 adults in 2010 present in the Lake Mead National Recreation Area;

*continued on next page*

**PROJECT CONTACT**

Ross Haley  
Resource Management  
Lake Mead National Recreation Area  
601 Nevada Highway  
Boulder City, NV 89005-4004  
702-293-8950  
ross\_haley@nps.gov

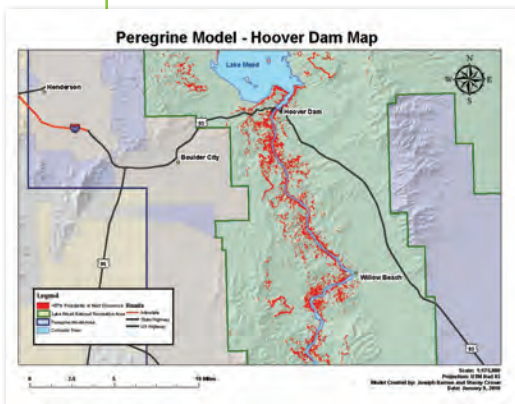
**FUNDING AMOUNT AWARDED**

2005-NPS-475 - \$30,120.00  
2005-NPS-609C - \$14,853.00

**CONTRACT TERM**

2005-NPS-475  
03/04/2008 through 06/04/2010  
2005-NPS-609C  
03/04/2008 through 06/04/2010

- Documented number of breeding pairs in three areas of the park – Black Canyon, Boulder Canyon, and the Virgin Canyon area;
- Identified six previously unknown territories and confirmed four previously suspected territories; and
- Determined that documented breeding attempts have increased along with territories. In 2008, there were 25 breeding attempts documented at 28 occupied territories, and in 2009 there were 28 breeding attempts documented at 32 occupied territories. The number of successful young was estimated at 39 and 55 in the respective years.



Peregrine habitat model.

Peregrine falcon at a site in Lake Mead National Recreation Area.  
*Photo credit, Joe Barnes*

Photo showing suitable peregrine nesting habitat in the Black Canyon area of Lake Mead National Recreation Area.  
*Photo credit, Joe Barnes*

**LEAD AGENCY**  
**National Park Service****PROJECT TITLE AND NUMBER****Relict Leopard Frog Monitoring and Management**

2005-NPS-476

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to implement actions described in a voluntary conservation agreement and strategy for the Relict Leopard Frog. The project involved managing these rare frogs through a cooperative interagency program designed to increase both overall numbers and number of populations in a defined region of southern Nevada and adjacent areas. Efforts under this project included population monitoring, habitat improvements, establishment of new populations, and augmentation of existing ones. Egg masses collected from native populations were reared in captive settings through development to later-stage tadpoles or young frogs. These animals were then released at suitable sites. Visual encounter surveys were conducted systematically several times per year to monitor the status of both natural and experimental populations. Assistance was provided to agency partners to identify potential translocation sites and to conduct associated conservation actions, including coordinating meetings of the Relict Leopard Frog Conservation Team.

**PROJECT STATUS - Completed**

- Conducted visual encounter surveys to monitor populations at all natural (eight) and experimental translocation (seven) sites during the spring and fall field seasons;
- Conducted additional surveys at two previously occupied sites (now extirpated) and at potential experimental sites;
- Removed an experimental site from active survey in 2008 after surface waters unexpectedly dried up;
- Conducted numerous additional diurnal surveys at several sites to better assess breeding phenology and to search for egg masses under urgent efforts to augment populations;
- Completed three seasons of translocations using animals reared at two facilities;
- Released frogs or tadpoles to augment five existing experimental sites and to establish one new site;
- Conducted emergency augmentation at three natural sites;
- Removed several experimental sites from augmentation over the course of the project to allow for the evaluation of long-term sustainability;
- Initiated sampling for a pathogenic fungus that causes chytridiomycosis, an 'emergent disease' of amphibians;
- Provided assistance to researchers conducting mark-recapture estimation of one population through time;

*continued on next page***PROJECT CONTACT**

Ross Haley  
Resource Management  
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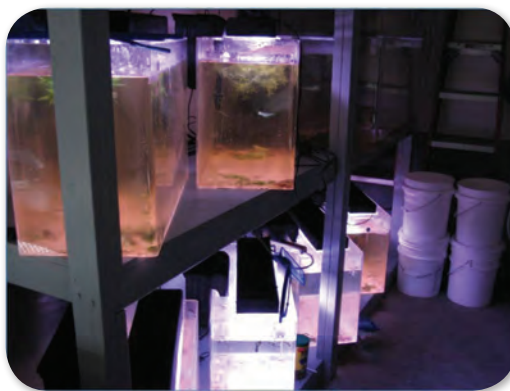
**FUNDING AMOUNT AWARDED**

\$333,000.00

**CONTRACT TERM**

09/04/2007 through 12/04/2010

- Conducted minor habitat maintenance of important breeding pools and coordinated with field crews conducting habitat actions at sites; and
- Facilitated semiannual Relict Leopard Frog Conservation Team meetings.



Fish-free pond created at Lower Blue Point.

Lake Mead Frog laboratory.



**LEAD AGENCY**

Jones and Stokes, ICF International

**PROJECT TITLE AND NUMBER**

**Rare Plant Inventories**

2005-JS-497B

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to conduct rare plant inventories for ten rare plant species found in Clark County. This project used a landscaping approach. The inventories were conducted to obtain comprehensive knowledge of the species to further define their predictive ecological models, including soil-landform relationship studies. The species inventoried were sticky ringstem, Las Vegas bearpoppy, white bearpoppy, threecorner milkvetch, Pahrump Valley buckwheat, Las Vegas buckwheat, sticky buckwheat, Beaver Dam breadroot, white margined beardtongue, and yellow two-tone beardtongue. Surveys were completed on a total of 511 four-hectare (ten-acre) plots within 13 separate Geographic Units within the county.

**PROJECT STATUS - Completed**

- Conducted rare plant inventories at 511 four-hectare (ten-acre) plots over a two-year period;
- Completed surveys during the spring of 2009 and 2010;
- Collected data using a standardized survey protocol;
- Produced a complete Geographic Information Systems database with appropriate metadata; and
- Submitted data to the Desert Conservation Program to support modeling efforts and to support the overall knowledge of rare plants and plant communities in the Clark County.

**PROJECT CONTACT**

Brad Schafer  
Project Manager  
Jones and Stokes, ICF International  
916-737-3000  
bschafer@jsanet.com

**FUNDING AMOUNT AWARDED**

\$414,356.00

**CONTRACT TERM**

03/17/2009 through 03/31/2011

A photo of sticky ringstem (flower) taken in the Rainbow Gardens Geographic Unit.



A photo of threecorner milkvetch (fruiting) taken in the Bowl of Fire Geographic Unit.



LEAD AGENCY

Nevada System of Higher Education

PROJECT TITLE AND NUMBER

**Sediment Transport of Source Materials to White-margined Penstemon**

2005-NSHE-502A

SNPLMA R6

PROJECT DESCRIPTION

The purpose of this project was to obtain information and analyze the status of soils and plants. This project analyzed field measurements to determine characteristics of white-margined penstemon, the ranges in soils, geomorphology and climatic properties supporting white-margined penstemon populations, the extent aeolian transport of sand occurs and the extent aeolian transport of dust occurs in support of characterization of the biological and physical features of white-margined penstemon habitat.

PROJECT STATUS - Completed

- Established and maintained seven full meteorological and sediment transport monitoring stations;
- Collected community and Penstemon specific growth, herbivory and reproductive data, and soil texture and chemistry data;
- Collected new population data on the Penstemon within both Clark and Nye counties;
- Updated the dataset collected in 1997;
- Completed meteorological data from each site; and
- Analyzed meteorological data for sediment transport rates and their corresponding triggers.

PROJECT CONTACT

Vic Etyemezian  
Associate Research Professor  
Nevada System of Higher Education  
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FUNDING AMOUNT AWARDED

\$798,553.00

CONTRACT TERM

05/01/2007 through 04/01/2010



Monitoring site.

*White-margined penstemon.*

**LEAD AGENCY**

**Bureau of Land Management**

**PROJECT TITLE AND NUMBER**

**Roads Monitoring on Bureau of Land Management Lands**

2005-BLM-503

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project is to support the Bureau of Land Management Las Vegas Resource Management Plan (1998) which established a limitation for vehicular travel within all Areas of Critical Environmental Concern within Clark County in order to conserve desert tortoise critical habitat, habitat for sensitive plant and wildlife species, and cultural resources. This plan limits vehicle use within the desert tortoise Areas of Critical Environmental Concern to designated roads and trails. Through this project, the Bureau of Land Management is documenting where resource damage is occurring within these areas, evaluating why it is occurring, and making management recommendations regarding actions to reduce these impacts. This is being accomplished by collecting data on condition and use of designated (non-paved) roads and making management decisions to help reduce threats to covered species. This project also provides kiosks and outreach.

**PROJECT STATUS - In Progress**

- Completed six quarterly reports and five monitoring reports;
- Conducted a minimum of 144 site visits;
- Monitored a total of 5,000 miles of designated routes;
- Participated in six outreach events within Clark County;
- Completed design of three distinct brochures;
- Completed designs and National Environmental Policy Act documentation for eight interpretive kiosks and ten single-panel interpretive signs within the project area;
- Installed ten signs;
- Completed a work plan, data management plan and sign plan; and
- Designed updates for the BLM web page including maps, Areas of Critical Environmental Concern descriptions, and a summary of the road monitoring project.

**PROJECT CONTACT**

Carolyn J. Ronning  
MSHCP Coordinator  
Bureau of Land Management  
4701 N. Torrey Pines Drive  
Las Vegas, NV 89130  
702-515-5143  
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**FUNDING AMOUNT AWARDED**

\$458,200.00

**CONTRACT TERM**

01/5/2010 through 12/15/2011



Collecting data sign location and condition data.

Evaluating and photographing landscape and road conditions.



**LEAD AGENCY**  
**National Park Service**

**PROJECT TITLE AND NUMBER**

**Lake Mead Geographic Information System and Data Management Support**  
2005-NPS-525  
SNPLMA R6

**PROJECT DESCRIPTION**

This project provides geographic information system and data management support for other Multiple Species Habitat Conservation Plan funded projects taking place on National Park Service lands. Support under this project includes assistance with project design; development of spatial and tabular databases; development of field data collection methodologies using global positioning system receivers, mapping software, and data dictionaries; assistance with data analysis; development of database queries and reports; development of geographic information system habitat models and maps; and other geographic information system and global positioning system technical assistance as needed. In addition, this project developed spatial and tabular databases from mined historic agency resource data and maps to provide information important to Multiple Species Habitat Conservation Plan implementation on National Park Service lands.

**PROJECT STATUS** - In Progress

- Created databases and/or geodatabases for project data on peregrine falcon, relict leopard frog, illegal ground disturbances, road conditions and signs, covered plants, watch list plants, weeds, bald eagle, and nine bird species;
- Performed quality assurance/quality control checks on database records, developed database reports, and created metadata and other documentation;
- Provided global positioning system device and electronic data collection support for field mapping on most projects;
- Produced maps for presentations and reports for many of the projects;
- Delivered final data for each related project to the Clark County Desert Conservation Program; and
- Developed Geographic Information System information from mined historic data for vegetation transects, razorback sucker, bonytail chub, bighorn sheep, bats, gila monster, abandoned mine lands, water quality, and climatic data.

**PROJECT CONTACT**

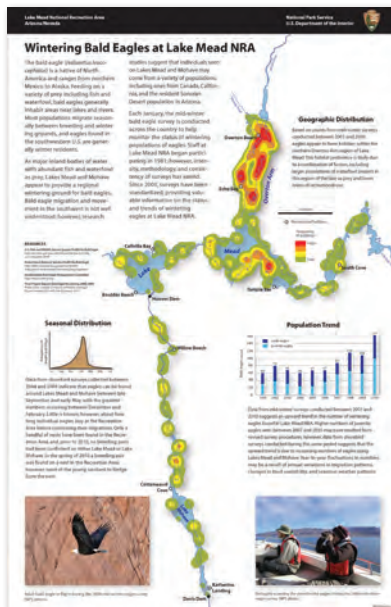
Mark Sappington  
GIS Specialist  
National Park Service  
Lake Mead National Recreation Area  
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702-293-8974  
mark\_sappington@nps.gov

**FUNDING AMOUNT AWARDED**

\$312,788.00

**CONTRACT TERM**

01/02/2008 through 02/14/2012



Downloading global positioning system data.

Wintering Bald Eagles.

## LEAD AGENCY

### National Park Service

#### PROJECT TITLE AND NUMBER

### Monitoring of Illegal Ground Disturbance in Response to Management Actions

2005-NPS-526

SNPLMA R6

#### PROJECT DESCRIPTION

This project was designed to discover incidents of Off-Road Vehicle disturbance on a timely basis before illegal routes become established. The project also intended to provide in a timely manner accurate information to the park law enforcement and restoration programs that would result in more effective management in the selected area. Finally, the project provided timely and accurate visitor information to help determine long-term management strategies for the park.

#### PROJECT STATUS - Completed

- Developed a database in Microsoft Access for traffic counter data, disturbances assessment, and restoration treatments;
- Monitored 18 approved roads every month for two years, looking for illegal ground disturbances and other illegal activities;
- Replaced all traffic counters with upgraded systems;
- Obtained use of a utility terrain vehicle to access roads that are inaccessible by four-wheel-drive trucks/sport utility vehicles;
- Provided Law Enforcement with updates of illegal ground disturbances and traffic counter information after each road was monitored; and
- Submitted final project report with trends analyses.

#### PROJECT CONTACT

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#### FUNDING AMOUNT AWARDED

\$105,287.00

#### CONTRACT TERM

03/04/2008 through 06/30/2010

Flash flood on AR31 (Six Mile Cove Road) which can move, damage, or destroy traffic counters.

Documented off-road vehicle disturbance near traffic counter location on AR60, Burro Wash Road.



**LEAD AGENCY**  
**National Park Service**

**PROJECT TITLE AND NUMBER**  
**Monitoring of Road Conditions and Signs**  
2005-NPS-529  
SNPLMA R6

**PROJECT DESCRIPTION**

The project was designed to perform road, sign, fence, and barrier maintenance to help reduce illegal off-road travel in Lake Mead National Recreation Area due to public ignorance and deliberate illegal off-road travel. The project also provided information relating to road conditions, disturbance, and sign conditions to the appropriate National Park Service programs and management. Finally, the project standardized documentation and monitoring methods with the Bureau of Land Management, United States Forest Service, and United States Fish and Wildlife Service, so data can be compared across the landscape of Southern Nevada.

**PROJECT STATUS** - Completed

- Developed a database for organizing Sign/Post ID, Sign Location, Sign/Post Condition, and Sign/Post Material, which we are then going to connect in to the National Park Service Facilities Management Software System;
- Obtained use of a utility terrain vehicle to monitor roads that are inaccessible by four-wheel-drive trucks/sport Utility vehicles;
- Monitored all accessible roads, signs, fences, barriers on the Nevada side of the park every quarter for two years;
  - Installed 117 signs on approved backcountry roads and inventoried and monitored 463 backcountry signs;
  - Restored 52 miles and nine acres of disturbance;
  - Reduced off-road travel with signs, barrier repair and track rehabilitation; and
  - Submitted two data transfers and final project report.

**PROJECT CONTACT**

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**FUNDING AMOUNT AWARDED**

\$114,737.00

**CONTRACT TERM**

03/04/2008 through 06/30/2010



Informational sign on AR30, Mead Davis Powerline Road.

Informational sign along AR101, Bitter Springs Road.

## LEAD AGENCY

### National Park Service

#### PROJECT TITLE AND NUMBER

### Threats Research and Monitoring on Invasive Species Sahara Mustard

2005-NPS-532

SNPLMA R6

#### PROJECT DESCRIPTION

The purpose of this study is to gain knowledge about Sahara mustard and devise efficient methods of control and removal to better protect the Multiple Species Habitat Conservation Plan covered species and the habitat that supports them. The objectives of this project are:

- To conduct experiments to test the effect of hand pulling (hypothesis 1) and herbicide (hypothesis 2) application treatment methods on seed viability;
- To conduct experiments to test genetic variability of varying plant sizes of Sahara mustard (hypothesis 3);
- To conduct experiments to test the effects of light on seed germination (hypothesis 4);
- To conduct experiments to determine the mating system of Sahara mustard plants (hypothesis 5); and
- To conduct experiments to test Sahara mustard seed viability in the seed bank (hypothesis 6).

#### PROJECT STATUS - In Progress

- Detailed experimental designs;
- Germinated Sahara mustard seeds;
- Attempted five mustard seed grow outs using more than 550 seeds;
- Experimented with many combinations of soil mixtures, watering regimes, temperatures and light levels, and container size;
- Implemented hypotheses (1-6);
- Analyzed preliminary results for hypotheses (1-6); and
- Submitted Data Management Plans, yearly data transfer and project reports.

#### PROJECT CONTACT

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#### FUNDING AMOUNT AWARDED

\$88,674.00

#### CONTRACT TERM

09/01/2009 through 01/01/2012



Marked plants for each size class within each transect.

Seeds being germinated in a germination chamber to conduct a viability test.



**LEAD AGENCY**  
**National Park Service**

**PROJECT TITLE AND NUMBER**

**Inventory, Research and Monitoring for Covered Plant Species**

2005-NPS-535

SNPLMA R6

**Technical Conditions**

2005-NPS-609E

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of these projects was to acquire additional information and provide more accurate descriptions and locations of these covered plant species: Las Vegas bearpoppy, Sticky ringstem, Threecorner milkvetch, and Sticky buckwheat. Project 535 analyzed why the rare plants occur and do not occur in areas with visually identical environments. The main objectives were to collect soil samples in these plant habitats. Soil samples were analyzed for macro and micronutrients and other attributes to determine differences between soils populated by these rare plants and those that are not. The information collected in these projects facilitated conservation of these species and assisted the Clark County Desert Conservation Program with conservation management strategies. These projects provided Clark County and federal land managers with baseline information on these covered plant species. Monitoring analyzed in tandem with the information generated during the biennium enabled managers to track population dynamics.

**PROJECT STATUS** - Completed

- Developed 11 conceptual models illustrating environmental requirements and stressors for the four covered plant species;
- Developed, tested, revised, and implemented monitoring protocols for each covered plant species;
- Designed and implemented a phenological study of Sticky ringstem;
- Assisted the National Park Service compliance department with assessing the potential damage of proposed projects to rare plant habitat;
- Installed and maintained 12 weather stations near rare plant monitoring sites;
- Established a long-term monitoring framework for six populations of Las Vegas bearpoppy, three populations of Sticky ringstem, three populations of Threecorner milkvetch, and two populations of Sticky buckwheat;
- Assessed relationships between the four covered species populations and current weather conditions;
- Located and collected 30 soil samples in sandy rare plant habitat;
- Located and collected 213 soil samples in gypsum rare plant habitat;
- Surveyed all vegetation transects pertinent to these soil samples;
- Delivered all soil samples to University of Nevada, Las Vegas Soil Science Lab for analysis;

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Plot set up at Weiser Wash (sandy site). Compliant cavity method was used to collect soil. The one meter square was placed around the plot center to collect sand, gravel, and rock.

Project lead, Dianne Bangle, setting up a rain gauge at a Las Vegas bearpoppy and ringstem monitoring site (Road 100).



- Conducted statistical analyses on soil sample results;
- Concluded that within these habitat islands Las Vegas bearpoppy occupied the less extreme plots within the extreme transects, whereas Sticky ringstem preferred more sandy, high saline soils;
- Generated and delivered all project reports, including Quarterly Reports, Final Report, Data Transfer, Annual Project Review Presentation, and Biennium Report
- Wrote and published one journal article;
- Wrote three outreach/technical publications; and
- Delivered four oral and poster presentations.

**PROJECT CONTACT**

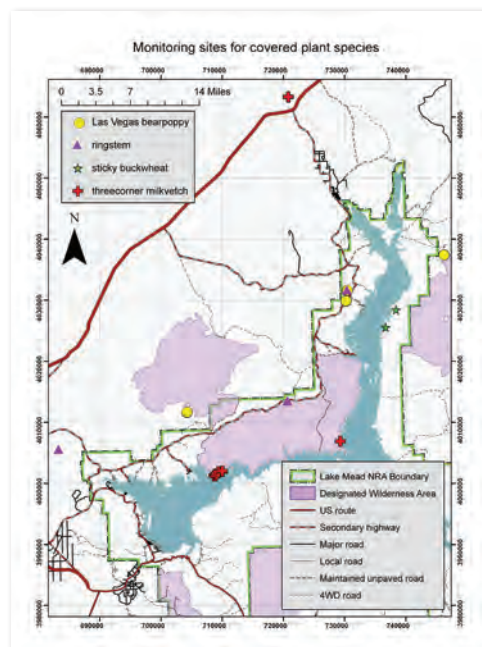
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**FUNDING AMOUNT AWARDED**

2005-NPS-535 - \$347,054.00  
2005-NPS-609E - \$23,500.00

**CONTRACT TERM**

2005-NPS-535  
10/02/2007 through 06/30/2010  
2005-NPS-609E  
04/14/2009 through 11/01/2010)



Map of covered plant species monitoring sites.

Biological technician, Karen Maloof, and UNLV researcher, Kate Prengaman, collecting vegetation data at Road 100 (gypsum site).



LEAD AGENCY

National Park Service

PROJECT TITLE AND NUMBER

**Inventory and Research for Watch and Evaluation Plant Species**

2005-NPS-536

SNPLMA R6

PROJECT DESCRIPTION

The purpose of this project was to acquire additional information and provide more accurate descriptions and locations of ten evaluation and watch species: Mokiak milkvetch, Virgin River thistle, Unusual catseye, Hoffman's cryptantha, Chalk liveforever, Silverleaf sunray, Las Vegas buckwheat, Barrel cactus, Beaver Dam breadroot, and Rosy twotone beardtongue. The main objectives for the project were to gain information about the locations and population sizes of these species and to prioritize these species and their habitats for status re-assessments in future phases of the Clark County Multiple Species Habitat Conservation Plan.

PROJECT STATUS - Completed

- Developed statistically sound monitoring protocols for each of the ten species;
- Developed conceptual models of environmental requirements and stressors for each of ten watch species;
- Appended a geospatial database with new and known survey locations;
- Surveyed known areas of each of the ten species plus 20% of survey effort outside of known habitat;
- Surveyed Gold Butte, Devils Cove Road, Fortification Hill, Black Mountains and the foothills of Indian Hills for Mokiak milkvetch;
- Documented two new populations of Virgin River thistle and surveyed six additional locations;
- Surveyed areas of Grapevine Canyon, Sacatone Wash, Spirit Mountain, and Pipe Spring for chalk liveforever;
- Documented a new population at Spirit Mountain;
- Surveyed six areas for Las Vegas buckwheat. Documented one new location;
- Documented 16 new locations of rosy twotone beardtongue;
- Surveyed 12 areas for Beaver Dam breadroot;
- Surveyed Gold Butte, Bitter Springs, Gale Hills, Sunrise Hills, the Meadview area, Blue Point, River Mountains, and Valley of Fire for barrel cactus;
- Surveyed and found many new populations of sunray along Northshore Road;
- Created maps of survey and population locations;
- Conducted a morphological study to determine if the higher elevation barrel cactus is indeed distinct from the

PROJECT CONTACT

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FUNDING AMOUNT AWARDED

\$163,277.40

CONTRACT TERM

02/05/2008 through 06/30/2010

- lower elevation plants, by documenting spine measurements and collecting fruit;
- Surveyed Spirit Mountain, Hamblin Mountain, and Black Mountains for new populations of Hoffman's cryptantha; and
  - Surveyed seven new areas for unusual catseye.

Photo of National Park Service botanist, Karen Maloof, assessing habitat conditions of the watch species sunray.



Photo of rosy twotone beardtongue habitat occurring along Nelson Road.



**LEAD AGENCY**  
**National Park Service**

**PROJECT TITLE AND NUMBER**  
**The Interagency Weed Sentry Project**  
2005-NPS-537  
SNPLMA R6

**PROJECT DESCRIPTION**

The goal of this project was to proactively detect incipient invasive plant populations so they could be controlled or eradicated before negatively impacting ecosystems and species of concern. The major objectives of the Interagency Weed Sentry Project were to identify and document the presence of new exotic invasive plant species, document targeted incipient populations of weeds in Clark County or vectors outside of Clark County and determine their distribution, and control incipient weed populations when feasible prioritizing areas for more extensive control efforts. The measurable objectives of the Interagency Weed Sentry Project were to survey for and document the locations of invasive plant populations, treat incipient populations, and record negative weed data.

Data supplied by the Interagency Weed Sentry Project provided land managers with a valuable tool to guide management decisions. Knowing where new infestations were, how extensive they were, and receiving recommendations on how to treat them, allowed land managers to make informed decisions to control invasive plants before they became major problems.

**PROJECT CONTACT**

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**FUNDING AMOUNT AWARDED**  
\$905,688.00

**CONTRACT TERM**  
09/18/2007 through 02/18/2010

**PROJECT STATUS - Completed**

- Appended an established database of weeds in Clark County;
- Appended an established map atlas of areas surveyed and species found and treated;
- Surveyed lands belonging to Bureau of Land Management (357 miles/2,788 acres), National Park Service (290 miles/2,257 acres), United States Forest Service (37 miles/243 acres) and United States Fish and Wildlife Service (123 miles/861 acres) for weed infestations.
- Recorded 3,559 weed infestation points;
- Treated invasive plant species on lands belonging to Bureau of Land Management (5,095 individuals of 14 species), National Park Service (44,790 individuals of 14 species), United States Forest Service (14,272 individuals of seven species) and United States Fish and Wildlife Service (1225 individuals of eight species);
- Produced trip reports and offered recommendations for weed control to Bureau of Land Management, National Park Service, United States Forest Service, and United States Fish and Wildlife Service land managers;
- Wrote the book chapter: Abella, S.R. 2009. Exotic species. In Warf, B. (ed.). Encyclopedia of geography. SAGE Publications, Inc., Thousand Oaks, CA;
- Wrote and published three journal articles;
- Wrote two outreach articles for a regional newsletter; and
  - Delivered seven oral and poster presentations.



Weed survey field work.

Area weed surveys were conducted.

## LEAD AGENCY

### National Park Service

#### PROJECT TITLE AND NUMBER

### Bald Eagle Monitoring

2005-NPS-540

SNPLMA R6

### Bald Eagle Modeling

2005-NPS-609B

SNPLMA R6

#### PROJECT DESCRIPTION

The purpose of these projects was to perform winter counts of the bald eagle in Lake Mead National Recreation Area in 2008 and 2009, and to better standardize the counting protocol and to model their habitat. Winter counts of bald eagles in Lake Mead National Recreation Area have been conducted since the early 1980s although methodologies and efforts have varied. The purpose of the counts was to document trends in the number of wintering bald eagles using Lake Mead and Mohave. Bald eagles are gregarious in the winter, and the mid-winter counts conducted across North America have been important in determining the overall status of this previously federally threatened species. This project provided additional data to monitor long-term trends in numbers. The overall goal was to inform an assessment of the species status in Clark County.

#### PROJECT STATUS - Completed

- Developed and implemented written standard operating procedures;
- Observed and counted 116 bald eagles (not including unidentified eagles and golden eagles) in Lake Mead and Mohave in January 2008 (the largest number of bald eagles recorded to date);
- Observed and counted 108 bald eagles in January 2009;
- Developed a Lake Mead model which included habitat suitability maps;
- Used a portion of Lake Mead to evaluate variations in counts through pre- and post-surveys of the route that typically returns the highest eagle count; and
- Completed and submitted data and reports.

#### PROJECT CONTACT

Ross Haley  
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#### FUNDING AMOUNT AWARDED

2005-NPS-540 - \$21,589.00  
2005-NPS-609B - \$18,135.00

#### CONTRACT TERM

2005-NPS-540  
01/02/2008 through 04/10/2010  
2005-NPS-609B  
01/02/2008 through 04/02/2010



Eagle count observer searching for eagles on Lake Mead.

Adult bald eagle taking flight on the Temple Bar East route.  
Photo credit, Carrie Norman



**LEAD AGENCY**  
National Park Service

**PROJECT TITLE AND NUMBER**

**Historical and Current Assessment of Six Covered and Three Evaluation Bird Species**

2005-NPS-542

SNPLMA R6

**Conceptual and Habitat Models of Six Covered and Three Evaluation Bird Species**

2005-NPS-609A

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of project 542 was to provide information toward assessing the status of several 'covered' and 'evaluation' bird species within Clark County, specifically Bell's vireo, Bendire's thrasher, Blue grosbeak, Gray vireo, Le Conte's thrasher, Phainopepla, Southwestern willow flycatcher, Summer tanager, and Vermilion flycatcher. The project had two main elements. The first focused on intensive area surveys aimed at habitats thought to be occupied by the targeted species. The monitoring and habitat measurements at these sites were intended to support regional efforts to assess the status of the bird species throughout Clark County and were conducted as a component of Nevada Bird Count.

The second element focused on targeted surveys and assessments of historical locations for these species within Clark County. Field surveys were used to assess species presence at historical locations, and to assess site condition in relationship to human development. General trends in habitat loss for species resulting from urbanization were estimated from the loss of plant communities in relationship to urban footprint layers. Project 609A developed conceptual models depicting habitat features and stressors for each species.

**PROJECT CONTACT**

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ross\_haley@nps.gov

**FUNDING AMOUNT AWARDED**

2005-NPS-542 - \$219,903.00  
2005-NPS-609A - \$133,500.00

**CONTRACT TERM**

2005-NPS-542  
10/16/2007 through 11/06/2010  
2005-NPS-609A  
10/16/2007 through 11/06/2010

**PROJECT STATUS** - Completed

- Conducted eight intensive area searches over two years at seven sites to identify and map breeding birds;
- Supplied data to collaborating researchers in their efforts to develop correction factors for regional point count surveys;
- Compiled and geo-referenced historical records for each species from multiple sources;
- Conducted targeted field surveys at 154 of these locations;
- Derived relative estimates of habitat loss for each species relative to estimates of urbanization for 1985, 1994, and 2006;
- Used soil survey data to estimate conditional changes in vegetation communities associated with each species; and
- Developed and used conceptual models for each species to guide the successful development of habitat suitability models and maps.



Photo of a Le Conte's thrasher in Clark County, July 2008.  
Photo credit, Dawn Fletcher

Reference photo of a historical location for Phainopepla near Red Rock, taken on April 30, 2010.

**LEAD AGENCY**

**Clark County Desert Conservation Program**

**PROJECT TITLE AND NUMBER**

**Desert Conservation Program Administration**

2005-CC-544P

SNPLMA R6

**Desert Conservation Program Administration**

2009-CC-800

S10 09-11

**PROJECT DESCRIPTION**

These projects provide day-to-day administration and operation of the Desert Conservation Program including management and implementation of Southern Nevada Public Lands Management Act projects. Implementation activities are conducted on behalf of Clark County, the cities of Las Vegas, North Las Vegas, Henderson, Mesquite, Boulder City, and the Nevada Department of Transportation.

**PROJECT STATUS - In Progress**

- Processed and managed mitigation fees for land disturbed during the biennium;
- Provided administration, project management, and/or implementation for 13 Section 10 projects;
- Provided administration, project management, and/or implementation for 40 Round 6 Southern Nevada Public Lands Management Act projects:
  - Completed 20 of these projects;
- Provided administration, project management, and/or implementation for three Round 8 Southern Nevada Public Land Management Act projects;
- Project management statistics include:
  - Received and processed 825 deliverables;
  - Tracked 43 deliverables as delinquent submissions;
  - Rejected 61 deliverables for corrective action;
  - Confirmed 389 milestones;
  - Received and processed 665 invoices, averaging ten days for review;
  - Rejected 91 invoices for corrective action;
  - Processed 54 formal change requests;
- Prepared two nominations for Round 12 of the Southern Nevada Public Lands Management Act;
- Funded Department of Motor Vehicles Off-Highway Vehicle Title and Registration Program;

*continued on next page*

**PROJECT CONTACT**

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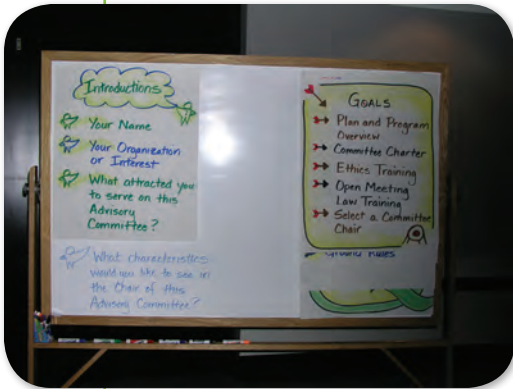
**FUNDING AMOUNT AWARDED**

2005-CC-544P - \$3,646,939.00  
2009-CC-800 - \$2,053,617.00

**CONTRACT TERM**

Internal project, no contract term  
Budget start date:  
2005-CC-544P  
02/14/2007  
2009-CC-800  
07/01/2009

- Currently pursuing Department of Motor Vehicles desert tortoise specialty license plate;
- Converted all permittee monthly mitigation fee remittance from checks to automated clearing house remittance to save staffing costs;
- Converted most outgoing letters from postal delivery to e-mail delivery to save mailing costs;
- Met with Nevada Division of Forestry on master permit for Las Vegas bearpoppy and its correlation to compliance activities for Nellis Air Force Base;
- Established a new cost center for enhanced budget tracking;
- Participated in audit and preparing Schedule of Expenditures of Financial Awards for Clark County Comptroller's office;
- Developed Indirect Cost Reimbursement model, submitted it to Southern Nevada Public Lands Management Act Executive Committee, and received approval;
- Finalized development of project and contract tracking system using Case 360;
- Implemented a new look and format to the Desert Conservation Program website; and
- Provided ongoing administration of all Multiple Species Habitat Conservation Plan activities.



Display at stakeholder advisory group meeting.

Desert Conservation Program staff verifying data in the field.

Clark County Desert Conservation Program staff during a teambuilding exercise.

Lewis Wallenmeyer, Director of Department of Air Quality and Environmental Management, attends a Desert Conservation Program staff meeting.



**LEAD AGENCY**  
**Watash, L.L.C.**

**PROJECT TITLE AND NUMBER**  
**Boulder City Conservation Easement Management Plan**  
2005-WATASH-546A  
S10 07-09

**PROJECT DESCRIPTION**

This project researched the history and intent of the Boulder City Conservation Easement and provided management recommendations. The final product was a management action plan report which summarized the history of the property, management challenges, and important characteristics of the land.

**PROJECT STATUS - Completed**

- Synthesized the relevant information on the history of the Conservation Easement and its importance to compliance with the Multiple Species Habitat Conservation Plan;
- Provided annotated summaries of past management issues documented by Clark County;
- Revised recommendations for management actions including clarification of roles and responsibilities, design and implementation of a natural resource inventory, and establishment of a long-term monitoring program to evaluate whether the primary purpose of the Boulder City Conservation Easement is being achieved;
- Proposed management actions to eliminate or moderate the issues; and
- Recommended steps to be taken to implement management actions.

**PROJECT CONTACT**

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**FUNDING AMOUNT AWARDED**

\$30,000.00

**CONTRACT TERM**

01/20/2008 through 10/20/2009

Boulder City Conservation Easement in 2011 looking Southwest.



Desert Tortoise in burrow in the Boulder City Conservation Easement.



**LEAD AGENCY**  
Nevada Department of Wildlife

**PROJECT TITLE AND NUMBER**  
**Peregrine Falcon Monitoring**  
2005-NDOW-549  
SNPLMA R6  
**Peregrine Falcon Modeling**  
2005-NDOW-609D  
SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of these projects was to determine the current status of peregrine falcons in Clark County through continued monitoring of historic sites and discovery of new territories as aided by the development of a predictive habitat suitability model and map. Known peregrine territories were surveyed for occupancy, nest success, and productivity. The Nevada Department of Wildlife has been designated as the Statewide Coordinator of the plan for Nevada and has been surveying, monitoring, and releasing young peregrines in Nevada since the 1980s. Peregrine falcons typically only engage in nesting activities in cliff and canyon habitats, making the protection of these areas vital to their continued existence and expansion in Nevada. This project increased survey efforts and resulted in documentation of an expansion of peregrines and their range in Nevada. This data provides documentation that the peregrine falcon populations are recovering in southern Nevada and that previous efforts have been effective in preserving this species.

**PROJECT CONTACT**

Cris Tomlinson  
Supervisory Wildlife Biologist  
Nevada Department of Wildlife  
4747 Vegas Drive  
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702-486-5127 ext 3717  
ctomlinson@ndow.org

**FUNDING AMOUNT AWARDED**

2005-NDOW-549 - \$25,611.30  
2005-NDOW-609D - \$14,000.00

**CONTRACT TERM**

2005-NDOW-549  
04/07/2009 through 03/31/2011  
2005-NDOW-609D  
04/07/2009 through 03/31/2011

**PROJECT STATUS - Completed**

- Completed all field work;
- Entered and analyzed all data;
- Completed final project report;
- Conducted six passive surveys, requiring 60 hours of observation, 2,011 miles driven, and 88 miles hiked;
- Conducted 151 exploratory call-broadcast surveys at select sites based on the draft habitat suitability model and maps in an effort to locate new territories, requiring 151 hiked miles, resulting in the discovery of at least three new breeding territories and three single peregrine detections;
- Monitored several known and new territories outside of Clark County to better develop and inform the draft habitat suitability model;
- Determined known breeding territories had increased from seven in 2009 to 16 by the end of data collection in 2010;
- Documented 11 occupied territories in 2010 and nine of those had a known outcome; and

- Documented 100% breeding success and productivity of 2.11 in young/successful territory.



Adult peregrine falcon with prey item.



Breeding pair of peregrine falcons, through a spotting scope (female is below the male, leaning forward, looking head-on).

**LEAD AGENCY****United States Geological Survey****PROJECT TITLE AND NUMBER****Effects of Fuel Management Treatment in the Spring Mountains National Recreation Area**

2005-USGS-551

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to collect baseline vegetation data that can be compared with follow-up vegetation data (post-treatment sampling) to evaluate the effects of the Spring Mountains Hazardous Fuel Reduction Project on select plant community types and plant populations. This project initiated a monitoring plan and established monitoring plots that were used to evaluate 1) responses of the overall plant community (i.e. biodiversity plots) and 2) responses of selected Multiple Species Habitat Conservation Plan covered plant species and the nectar and larval host plants of covered butterfly species (i.e. covered plants species) to treatment effects associated with fuels reduction activities where adequate replication occurred.

**PROJECT STATUS - Completed**

- Designed, installed, and collected data on 54 community and 154 covered plant/butterfly nectar/larval host plants in the Spring Mountains National Recreation Area;
- Mapped and geo-referenced all plots;
- Entered, error-checked, and delivered data to Clark County; and
- Submitted analysis and final report to Clark County.

**PROJECT CONTACTS**

Dr. Steve Ostoja  
Ecologist  
United States Geological Survey  
5083 Foresta Rd.  
El Portal, CA 95318  
209-349-1308

**FUNDING AMOUNT AWARDED**

\$321,501.00

**CONTRACT TERM**

03/04/2008 through 08/31/2010

Community sampling plot in the pinyon-juniper listed ecosystem.



Population plot showing each of the four sampling belts.



**LEAD AGENCY**

University of California, Santa Barbara

**PROJECT TITLE AND NUMBER**

**Effectiveness Monitoring of Spring-fed Wetlands and Riparian Restoration Treatments**  
2005-USGS-552  
SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to provide effectiveness monitoring assessment of sites where measures to control invasive riparian weeds have been applied. The research characterized and compared control methods to determine management approaches which would yield desired results.

**PROJECT STATUS** - Completed

- Analyzed and assessed the effectiveness of treatments for tamarisk and invasive weeds by fire, herbicides, and biological control;
- Analyzed and assessed avian response to tamarisk removal on the Virgin River;
- Submitted data and reports to county.

**PROJECT CONTACT**

Tom Dudley  
Marine Science Institute  
University of California, Santa Barbara  
Santa Barbara, CA 93106-6150  
805-893-2911  
tdudley@msi.ucsb.edu

**FUNDING AMOUNT AWARDED**

\$946,389.00

**CONTRACT TERM**

12/16/ 2008 through 07/01/2011



Cottonwoods surrounded by defoliated tamarisk.

Area where effectiveness monitoring was conducted.

**LEAD AGENCY**

**Clark County Desert Conservation Program**

**PROJECT TITLE AND NUMBER**

**Media and Outreach Development**

2005-CC-553

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project is to develop and implement various media, outreach and public information projects to support the messages of the Clark County Desert Conservation Program. Section 2.8.3.4 of the Clark County Multiple Species Habitat Conservation Plan specifically states that the Public Information and Education Program will inform the public of the terms of the Section 10(a) permit; encourage respect, protection, and enjoyment of natural ecosystems in Clark County; and through education, increase the public understanding and awareness of the value of Clark County’s natural ecosystems.

The following subprojects/subcontracts were managed under this project:

|                         |             |             |
|-------------------------|-------------|-------------|
| 2005-BLVDS-553-3-B      | \$3,510.00  | Completed   |
| 2005-LVRJ-553-3-F       | \$20,741.40 | Completed   |
| 2005-KNPR-553-3-G       | \$20,000.00 | Completed   |
| 2005-AERO-553-3-H       | \$20,000.00 | Completed   |
| 2005-JOSHUATREE-553-4-A | \$5,000.00  | In Progress |
| 2005-BLVD-553-6-H       | \$9,900.00  | Completed   |
| 2005-COX-553-6-J        | \$10,578.75 | Completed   |
| 2005-WOOD-553-6-K       | \$2,000.00  | In Progress |
| 2005-STEVENKIDS-553-8-B | \$10,000.00 | Completed   |
| 2005-STEVENKIDS-553-9-A | \$23,000.00 | In Progress |

**PROJECT STATUS - In Progress**

- Provided posters, program brochures, products and information at various outreach events including trails day events, earth day celebrations, parades, and public meetings;
- Created and ran several advertisements promoting responsible desert use and wild and pet desert tortoise messages:
  - Ran five billboards for three months positioned on roads towards desert areas with 640,000 potential views per day;
  - Ran 140 print advertisements in local community publications (The View, Boulder City News, El Tiempo, Nellis Air Force Base publication, BLVDS);

*continued on next page*

**PROJECT CONTACT**

Christina Gibson  
 Management Analysis II  
 Clark County Desert Conservation Program  
 333 N. Rancho, Ste. 625  
 Las Vegas, NV 89106  
 702-455-2860  
 cng@ClarkCountyNV.gov

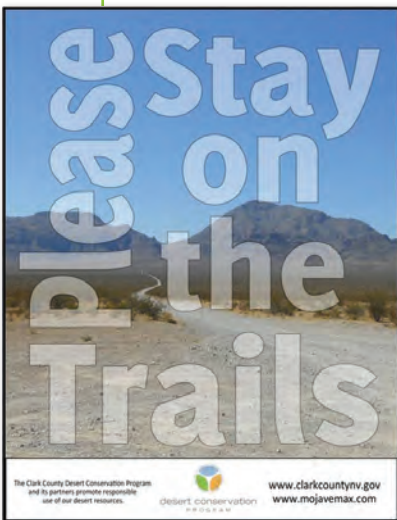
**FUNDING AMOUNT AWARDED**

\$240,000.00

**CONTRACT TERM**

Internal project, no contract term  
 Budget start date:  
 02/27/2007

- Aired 148 10-second announcements on KNPR;
- Continued to manage and promote the Mojave Max Education Program:
  - Aired 170 30-second television advertisements during children's programming;
  - Aired 590 10-second announcements on KNPR;
  - Ran eight print advertisements in KNPR's Desert Companion;
  - Modified, updated and purchased two new Mojave Max mascot costumes;
- Purchased and distributed can coolers supporting responsible desert use; and
- Purchased and distributed zipper pulls, rulers, pencils and pens targeted at school-age children.



Stay on the Trails advertisement promoting responsible desert use.

Can cooler promoting responsible desert use.

LEAD AGENCY

Nevada Natural Heritage Program

PROJECT TITLE AND NUMBER

Sensitive Species Data Management

2005-NNHP-557

SNPLMA R6

PROJECT DESCRIPTION

The purpose of this project is to continue to develop and update the Nevada Natural Heritage Program biological datasets for sensitive species within Clark County. Project work includes coordinating data management for sensitive species addressed under the Clark County Multiple Species Habitat Conservation Plan and coordinating data transactions directly with Multiple Species Habitat Conservation Plan partners as well as federal, state, and local government agencies.

PROJECT STATUS - In Progress

- Provided Annual Work Plans;
- Provided a Data Management Plan;
- Participated in a Data Coordination meeting where diverse datasets were compared to start the process of reconciling datasets and incorporating new information;
- Incorporated or updated 1,086 observations of ten rare species to date;
- Provided project presentation for the 2010 annual symposium;
- Continuing to comprehensively map and update rare species occurrences; and
- Continuing to incorporate new and updated information into databases.

PROJECT CONTACT

Jennifer Newmark  
Administrator  
Nevada Natural Heritage Program  
901 S. Stewart St., Ste. 5002  
Carson City, NV 89702  
775-684-2904  
jnewmark@heritage.nv.gov

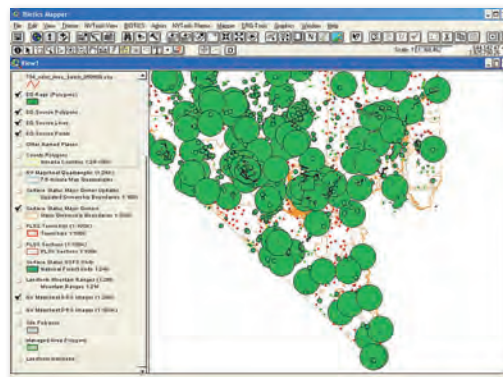
FUNDING AMOUNT AWARDED

\$180,000.00

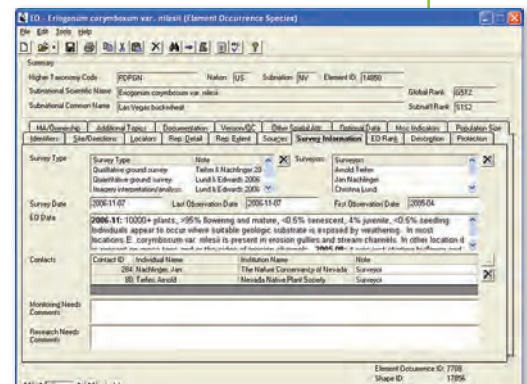
CONTRACT TERM

06/16/2009 through 12/30/2011

Screen shot of Mapper, Nevada Natural Heritage Program geographic information system database where geographical information is captured and stored.



Screen shot of Tracker, Nevada Natural Heritage Program database where tabular data are recorded on such attributes as date last observed, size and condition of population, habitat conditions, land ownership and other important documented information.



LEAD AGENCY

Red Rock Canyon Interpretive Association

PROJECT TITLE AND NUMBER

**Mojave Max Education Program Development**  
2005-RRCIA-559A  
SNPLMA R6

PROJECT DESCRIPTION

The purpose of this project is to provide administration and implementation of education and outreach components of the Mojave Max Education Program. This project provides school presentations, teacher training classes, environmental education resources, and public events. This project supports the Mojave Max Emergence Contest by encouraging children to learn more about the desert tortoise. Red Rock Canyon Interpretive Association also collects and donates additional funding toward local and regional Mojave Max Education, outreach, and support.

PROJECT STATUS - In Progress

- Provided classroom presentations to 1,382 classes at 259 schools, reaching 32,264 students;
- Held 24 large assemblies, reaching an additional 283 classes and 5,855 students;
- Trained 40 teachers to teach Mojave Max lessons in their own classrooms;
- Contacted 25,183 people at community events;
- Hosted two annual Mojave Max Winners field trips;
- Generated and contributed \$9,409.48 in additional funding and donations to the Mojave Max Education Program;
  - Provided an action plan for a self-sustaining program;
  - Provided an action plan for partner development and coordination;
  - Expanded the line of Mojave Max merchandise;
  - Assisted with revisions and updates of the website [www.mojavemax.com](http://www.mojavemax.com);
  - Initiated monthly Meet Mojave Max Day at Red Rock Canyon National Conservation Area;
  - Began production on two environmental education videos; and
  - Awarded the 2010 Excellence Award from the Association of Partners for Public Lands, which recognized the program's creativity, exemplary partnerships, and potential for replication in other areas.

PROJECT CONTACT

Fran Byers  
Mojave Max Program Manager  
6755 W. Charleston Blvd., Ste.D  
Las Vegas, NV 89146  
702-258-7097  
fbyers@interact.ccsd.edu

FUNDING AMOUNT AWARDED

\$400,000.00

CONTRACT TERM

09/04/2007 through 12/31/2011



The 2010 Mojave Max winner from Fredrick Watson Elementary School poses with school friends in front of the Red Rock Canyon Visitor's Center on their winner's field trip.

The 2011 winning class visits the live Mojave Max at Red Rock Canyon National Conservation Area.



**LEAD AGENCY**  
**Clark County**

**PROJECT TITLE AND NUMBER**

**Muddy River Property Management and Acquisition**  
2005-CC-561B  
SNPLMA R6

**PROJECT DESCRIPTION**

This project encompassed the acquisition and management of land in the Upper Muddy River, which has the highest concentration of riparian species in Clark County that are endangered and/or regarded as species of concern. The Nature Conservancy formally transferred 118 acres of land to Clark County which was previously acquired on behalf of the Clark County Desert Conservation Program. Property management activities included weed control (tamarisk removal) maintenance of existing roads, maintenance of a frog refugia, creation of fire breaks, re-vegetation along the river, and fence construction and maintenance.

The following subprojects/subcontracts were managed under this project:

|                   |              |           |
|-------------------|--------------|-----------|
| 2005-TNC-561      | \$217,000.00 | Completed |
| 2005-MCCOR-561C   | \$21,357.00  | Completed |
| 2005-GOTHIC-561E  | \$6,043.00   | Completed |
| 2005-WHEELER-561F | \$580.00     | Completed |

**PROJECT STATUS - Completed**

- Removed invasive vegetation;
- Installed a fence to exclude exotic species around the frog refuge;
- Created 3,700+ feet of 15-foot-wide fire break along property border;
- Removed and treated tamarisk from over 2,500 feet of river bank;
- Removed 21 palm trees and skinned 27 other palm trees as a fire prevention measure;
- Installed an electric timer to save labor hours in controlling pump that maintains the water level in the pond for the benefit of the Relict Leopard Frog;
- Demolished and removed the house on the Alamo property in anticipation of future restoration activities; and
- Formally transferred property ownership to the Clark County Desert Conservation Program, from the Nature Conservancy.

**PROJECT CONTACT**

Liz Bickmore  
Environmental Specialist  
333 N. Rancho, Ste. 625  
Las Vegas, NV 89106  
702-455-2972  
bickmore@ClackCountyNV.gov

**FUNDING AMOUNT AWARDED**

2005-CC-561B - \$286,726.00

**CONTRACT TERM**

Internal project, no contract term  
Budget start date:  
2005-CC-561B  
02/27/2007

Site of house removed  
from Alamo Property.

Perkins Pond Fence.



**LEAD AGENCY**  
**Clark County**

**PROJECT TITLE AND NUMBER**

**Retro Fencing Projects**

2005-CC-562

S7 05-07

**New Fencing Projects**

2005-CC-563

S7 05-07

**Fencing Monitoring and Maintenance Projects**

2005-CC-564

S7 05-07

**Desert Tortoise Fencing**

2009-CC-804

S10 09-11

**PROJECT DESCRIPTION**

The purpose of this project is to install and maintain fencing along roadways within Clark County to reduce tortoise mortality and protect Mojave Desert wildlife. Installing and maintaining tortoise-proof fencing has been a priority for the Clark County Desert Conservation Program since the program inception. The Desert Conservation Program has funded a road mortality study, a barrier study, trial fencing projects, installation of new fencing, retro-fitting of fencing and fencing monitoring and maintenance projects since 1995. This project continued these fencing efforts.

**PROJECT CONTACT**

Christina Gibson  
Management Analysis II  
Clark County Desert Conservation Program  
333 N. Rancho, Ste. 625  
Las Vegas, NV 89106  
702-455-2860  
cng@ClarkCountyNV.gov

**FUNDING AMOUNT AWARDED**

2005-CC-562 - \$792,000.00  
2005-CC-563 - \$1,500,000.00  
2005-CC-564 - \$80,000.00  
2009-CC-804 - \$425,000.00

**CONTRACT TERM**

Internal projects, no contract term  
Budget start dates:  
2005-CC-562  
07/01/2005  
2005-CC-563  
07/01/2005  
2005-CC-564  
07/01/2005  
2009-CC-804  
07/01/2009

The following subprojects/subcontracts were managed under this project:

|                         |              |             |
|-------------------------|--------------|-------------|
| 2005-NDF-562E           | \$275,000.00 | Completed   |
| 2005-AMERICANFENCE-563A | \$247,940.00 | Completed   |
| 2005-NDF-804A           | \$40,000     | In Progress |

**PROJECT STATUS - In Progress**

- Retro-fitted 170 miles of tortoise-proof fencing along highways within Clark County;
- Monitored and maintained designated roadway sections not within Nevada Department of Transportation right-of-ways (Large Scale Translocation Site perimeter and Nipton Road section) twice per year;
- Completed monitoring and maintenance of fencing in Boulder City Conservation Easement in 2009;

*continued on next page*



Nevada Division of Forestry Supervisors inspecting fencing.

- Completed one-time maintenance, monitoring and data collection for all fencing (424 miles) in Clark County in 2010:
  - Collected Global Positioning System data for all breaks, repairs, washes and existing fencing;
  - Replaced all deteriorated mesh fencing;
  - Fixed all breaks in fencing (167 incidents, 3145 feet);
  - Stabilized/back filled 330 washouts;
- Purchased miscellaneous fencing supplies (t-posts, smooth wire, hog rings) for fencing maintenance;
- Evaluated fencing projects and needs for the Clark County Desert Conservation program;
- Prepared and submitted a data plan describing data collection, compilation, processing and submission procedures; and
- Available to respond to requests for fencing monitoring and maintenance at the request of the Desert Conservation Program.

Clark County NDF Wildlife Fencing Data Dictionary 2011

| Description        | Symbol# |
|--------------------|---------|
| Starting Point     | 15      |
| Ending Point       | 16      |
| Cattle Guard       | 8233    |
| Burrow Hole        | 18      |
| Drainage No Damage | 165     |
| Road               | 179     |
| Tortoise           | 2       |
| Bridge             | 16392   |
| Damaged Fence      | 25      |
| Culvert            | 19      |
| Gate               | 4       |

Data Dictionary for fencing project.

Fencing Along Roadway to protect species.

Tortoise-proof fencing adjacent to highway.



**LEAD AGENCY**  
University of Nevada, Reno

**PROJECT TITLE AND NUMBER**  
**Epidemiology of the Desert Tortoise**  
2005-UNR-567  
SNPLMA R6

**PROJECT DESCRIPTION**

This project researched mechanisms by which stress causes disease and decline of tortoise populations. The primary goal was to evaluate the immune status of natural populations of desert tortoises and to develop indicators of environmental stress that allow better management of this listed species. This survey of health status can be used in geographic information system analyses important for recovery of the species.

**PROJECT STATUS** - Completed

- Showed that the SDS-PAGE and Western Blot analysis reagents bind well with the heavy and light chains of desert tortoise IgM, IgY, and LgY(DFc);
- Prepared an IgG reagent by chromatography and used this in a fluoroimmunoassay in an experiment to track the immune response to ovalbumen injected into tortoises;
- Showed seasonal competence to the immune system. IgY and IgM fractions of the total Ig were prepared using Sephacryl=A-300 gel filtration chromatography. Hybridomas secreting monoclonal antibodies were prepared. Three IgM heavy-chain-specific antibodies have been characterized by ELISA and Western Blot;
  - Developed methods of isolating peripheral blood lymphocytes from tortoise blood and methods of culturing these cells;
  - Showed geographic variation in natural antibody patterns;
  - Tested all range-wide blood serum samples from wild tortoises; and
  - Mapped tortoise point locations with the associated health data.

**PROJECT CONTACT**  
Dr. C. Richard Tracy  
Professor of Biology  
University of Nevada, Reno  
1049 Evans Ave.  
Reno, NV 89557  
775-784-4565  
dtracy@biodiversity.unr.edu

**FUNDING AMOUNT AWARDED**  
\$779,726.00

**CONTRACT TERM**  
07/17/2007 through 11/01/2009



Map of tortoise disease status.

Wild desert tortoise.

**LEAD AGENCY****Pinyon Environmental Engineering Resources, Inc.****PROJECT TITLE AND NUMBER****Butterfly Monitoring and Inventories**

2005-PINYON-570C

SNPLMA R6

**Butterfly Monitoring Phase Two**

2005-PINYON-574T

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of these projects is to complete monitoring and inventories of butterflies, with a focus on the Mount Charleston blue butterfly and the Spring Mountains checkerspot. Eight species of butterfly have been designated by the United States Forest Service as species of concern for the Spring Mountains. Three major goals of these projects are to:

- Increase understanding of the size of the South Loop Trail Mount Charleston blue butterfly subpopulation;
- Provide population, distribution, and behavior information needed to conserve the Spring Mountains checkerspot;
- Identify additional habitat for the rare Spring Mountain butterflies, including Mount Charleston blue butterfly habitat and potential colonies that could be part of the South Loop Trail subpopulation.

Project activities are located in the Spring Mountains National Recreation Area, approximately 40 kilometers (25 miles) northwest of Las Vegas within the Humboldt-Toiyabe National Forest, Clark County, Nevada.

**PROJECT STATUS - In Progress**

- Completed and submitted species report;
- Observed and recorded many Mount Charleston blue butterfly and Spring Mountains checkerspot adults (total numbers recorded to be documented at project end);
- Completed habitat assessment and map for the Mount Charleston blue butterfly;
- Identified additional Spring Mountains checkerspot habitat;
- Completed a full season of surveys for both the butterfly species;
- Compiled 2010 species report and species data;
- Continuing the second, and final, season of surveys for the Spring Mountains checkerspot;
- Continuing habitat assessment and map for the Spring Mountains checkerspot;
- Continuing SMC species surveys; and
- Preparing to begin the final surveys for the Mount Charleston blue butterfly.

A male Mount Charleston Blue Butterfly nectaring on erigeron.

A Spring Mountain checkerspot perched on a rock.

**PROJECT CONTACT**

Andrea Sever  
Pinyon Environmental Engineering  
Resources, Inc.  
393 B CR 102  
Carbondale, CO 81623  
970-319-2656  
sever@pinyon-env.com

**FUNDING AMOUNT AWARDED**

2005-PINYON-570C - \$97,566.00  
2005-PINYON-574T - \$11,866.00

**CONTRACT TERM**

2005-PINYON-570C  
01/19/10 through 11/15/ 2011  
2005-PINYON-574T  
01/19/10 through 11/15/ 2011



**LEAD AGENCY**  
**The Nature Conservancy**

**PROJECT TITLE AND NUMBER**  
**Effectiveness Monitoring for Saltcedar and Knapweed Control**  
2005-TNC-572  
SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to conduct retrospective effectiveness monitoring for past and current weed control and restoration efforts, conduct experimental effectiveness monitoring for weed and restoration efforts, and map the distribution of Saltcedar, Russian knapweed, and Tall whitetop using remote sensing on the Muddy River. The study area included the parcels along the Muddy River from Clark County Alamo property downstream through Bureau of Land Management Perkins and then restarting again from the Nevada Power property downstream until the Riverview property near I-10.

**PROJECT STATUS** - Completed

- Completed sampling on 40 retrospective plots previously treated by Muddy River Regional Environmental Impact Alleviation Committee to determine soil salinity, overstory canopy, and plant cover;
- Completed pre- and post-treatment sampling of 15 experimental blocks. Blocks were sampled for soil salinity, overstory canopy, and plant cover;
- Completed removal of ~2.9 acres of saltcedar and Russian Knapweed on the 15 experimental blocks (using subcontractor Muddy River Regional Environmental Impact Alleviation Committee);
- Completed breeding bird surveys and fish surveys along the parcels of the Muddy River which were included in the retrospective portion of the study, conducting each survey twice during the study;
- Observed 69 different species of birds during the breeding bird surveys, and identified 12 different species of fish;
- Completed remote sensing analysis and detected 0.03 acres of tall whitetop, 7.6 acres of Russian knapweed, and 202 acres of tamarisk; and
- Completed statistical analyses of the data for the retrospective and experimental portions of the project.

**PROJECT CONTACT**

Tanya Anderson  
Southern Nevada Project Ecologist  
The Nature Conservancy  
1771 E Flamingo Rd., Ste. 104A  
Las Vegas, NV 89119  
702-737-8744 x 117  
tanderson@tnc.org

**FUNDING AMOUNT AWARDED**

\$594,991.00

**CONTRACT TERM**

03/18/2008 through 05/31/2010



A plot on Nevada Energy property prior to treatment. Note the dense overstory vegetation, the native Yerba mansa in the right foreground and Wolfberry near the top left of the photo.

A plot on Nevada Energy property one year post treatment. This plot had saltcedar removed and treated with garlon. A layer of native grass hay was spread over the plot and willow wattles were planted. Note the extensive Yerba mansa and Wolfberry.

**LEAD AGENCY**

**Clark County Desert Conservation Program**

**PROJECT TITLE AND NUMBER**

**Adaptive Management Program**

2005-CC-574

SNPLMA R6

**Adaptive Management Program**

2009-CC-801

S10 09-11

**PROJECT DESCRIPTION**

The purpose of projects under the Adaptive Management Program is to provide technical review and advice to the Desert Conservation Program as well as refine analyses defined in the Multiple Species Habitat Conservation Plan and Biological Opinion. These analyses are land use trends, habitat loss by ecosystem, species status and ecosystem health, and Multiple Species Habitat Conservation Plan implementation and effectiveness. These projects also continued implementing improvements recommended by the Desert Conservation Program’s Program Management Analysis (December 2005). These improvements included competitive selection process for the Science Advisor Team, award of the successful proponent for the Science Advisor Team request for proposal - Enduring Conservation Outcomes, LLC, hosting two annual progress report symposia for Desert Conservation Program projects with an Adaptive Management Program panel of experts providing feedback, and wider distribution of the products of the Desert Conservation Program including those of the Adaptive Management Program.

The following subprojects/subcontracts were managed under this project:

|                        |              |             |
|------------------------|--------------|-------------|
| 2005-USGS-574B         | \$430,000.00 | Completed   |
| 2005-REMORTEL-574D     | \$24,000.00  | Completed   |
| 2005-TSG-574L          | \$25,000.00  | Completed   |
| 2005-SOUNDSCIENCE-574M | \$22,000.00  | In Progress |
| 2005-CAP-574O          | \$5,000.00   | Completed   |
| 2005-TSG-574P          | \$23,000.00  | In Progress |
| 2005-TSG-574Q          | \$15,000.00  | Completed   |

*continued on next page*



Presentation at 2010 Annual Symposium.



Meeting with scientific advisors.

**PROJECT STATUS** - In Progress

- Completed competitive Request for Proposal process for 2009-2012 science advisor contract;
- Produced 2010 Adaptive Management Report;
- Tracked land use trends and habitat loss by ecosystem and incorporated information in 2010 Adaptive Management Report;
- Produced 309 peer review documents reflecting technical expert review of a majority of technical Multiple Species Habitat Conservation Plan funded projects;
- Used peer review documents in deliverable review, scope modification requests, and provided copies to contractors;
- Held workshop with agency staff and experts to improve monitoring and produced report titled "Improving the Implementation of Ecological Monitoring and Adaptive Management in the Clark County Multiple Species Habitat Conservation Plan." (Report is available at [www.clarkcountyNV.gov](http://www.clarkcountyNV.gov) - Departments, Desert Conservation Program, Library, Adaptive Management Program Reports);
- Provided technical recommendations for development of the 2011-2013 Implementation Plan and Budget using available data on covered species status, ecosystem status, land use trends, and habitat loss;
- Refined soils and geological datasets for gypsum and sand habitats;
- Held the 2009 Project Progress Symposium on August 11-12, 2009. Provided presentations on 31 projects, diverse audience of 67 attended, panel of six biological science experts provided verbal and written comments on presentations and presentations were posted on website ([www.clarkcountyNV.gov](http://www.clarkcountyNV.gov) - Departments, Desert Conservation Program, Library, Symposium);
- Held the 2010 Project Progress Symposium on August 10-12, 2010. Provided presentations on 26 projects, diverse audience of 53 attended, panel of five biological science experts provided verbal and written comments on presentations. Presentations were posted on website ([www.clarkcountyNV.gov](http://www.clarkcountyNV.gov) - Departments, Desert Conservation Program, Library, Symposium); and
- Began development of a Desert Tortoise Occupancy Monitoring protocol.

**PROJECT CONTACT**

Sue Wainscott  
Senior Environmental Specialist  
Clark County Desert Conservation Program  
333 N. Rancho, Ste. 625  
Las Vegas, NV 89106  
702-455-3859  
Swainsco@ClarkCountyNV.gov

**FUNDING AMOUNT AWARDED**

2005-CC-574 - \$2,950,335.00  
2009-CC-801 - \$974,000.00

**CONTRACT TERM**

Internal project, no contract term  
Budget start dates:  
2005-CC-574  
02/14/2007  
2009-CC-801  
07/01/2009



Scientific advisor Rob Sutter identifying a rare plant.



**LEAD AGENCY**

University of Nevada, Las Vegas

**PROJECT TITLE AND NUMBER****Connectivity of Leopard Frog Populations**

2005-UNLV-575

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to determine the distribution and identity of leopard frog populations in the western Grand Canyon within the proposed management zone, and to identify sites potentially suitable for establishment of new populations of relict leopard frogs. The project used genetic markers to identify leopard frog populations and assess population structure.

**PROJECT STATUS - Completed**

- Conducted field surveys within the western Grand Canyon region to evaluate presence of leopard frogs and reviewed additional surveys from a separate project. In total, 41 different sites (e.g., separate canyons, springs, ponds, or marshes) were evaluated, with many of these sites were visited repeatedly to ensure detection of leopard frogs present in low numbers or in very restricted habitat patches;
- Confirmed population of these frogs at Willow Creek, approximately 85 km to the south outside the canyon system;
- Assessed mitochondrial DNA sequence data and identified the newly discovered population within the western Grand Canyon as a distinct population of Lowland leopard frog; and
- Identified six sites within the Western Grand Canyon as having habitat potentially suitable for Relict leopard frog based on expert opinion.

**PROJECT CONTACT**

Dr. Jef Jaeger  
Primary Investigator  
Research Assistant Professor  
School of Life Sciences  
University of Nevada, Las Vegas  
4505 South Maryland Parkway  
Las Vegas, NV 89154

**FUNDING AMOUNT AWARDED**

\$147,836.00

**CONTRACT TERM**

08/07/2007 through 03/19/2010



Perennial water at Spencer Canyon.

Columbine Falls at Cave Canyon with part of the field crew pictured.



**LEAD AGENCY**  
**Partners in Conservation**

**PROJECT TITLE AND NUMBER**

**Partners in Conservation and Volunteer Support for Bureau of Land Management Roads Monitoring**  
2005-PIC-577  
SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to develop and execute a roads monitoring program in partnership with the Bureau of Land Management. This monitoring program used community groups and volunteers to help accomplish data collection requirements. The goals of this project were to document road conditions, document baseline use of roads, document specific illegal uses, document responses to reports of illegal use, assist the Desert Conservation Program with roads monitoring, and increase public awareness of road issues.

**PROJECT STATUS** - Completed

- Developed work Area Management Plans, a Data Management Plan, a Volunteer Recruiting and Management Plan, and a Monitoring Procedures and Protocols Plan;
- Collected 545 waypoints;
- Collected 2,043 incident points;
- Collected 2,264 km or 3,654 miles of linear Global Positioning System data;
- Logged 3,757 field hours to complete project;
- Drove 44,425 miles to complete project; and
- Produced 1,067 Daily Field Data Collection Reports.

**PROJECT CONTACT**

Elise McAllister  
Administrator  
Partners in Conservation  
PO Box 298  
Moapa, NV 89025  
702-864-2464; 702-219-2033  
picorg@mvdsl.com

**FUNDING AMOUNT AWARDED**

\$254,588.00

**CONTRACT TERM**

08/04/2009 through 06/30/2011



Volunteer traveling project area on all terrain vehicle.

Volunteer collecting data.

**LEAD AGENCY****University of Nevada, Reno****PROJECT TITLE AND NUMBER****Ecosystem Indicators: Change Detection**

2005-UNR-578

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project is to develop a county-wide geomorphology geographic information system dataset, update and refine the current vegetation and ecosystem dataset, and develop a set of remote sensing enhanced vegetation classification methods. The geomorphic dataset can be further used as an input to a new vegetation and ecosystem dataset to help further define the vegetation transition areas between vegetation classes.

**PROJECT STATUS - In Progress**

- Processed Quickbird Imagery;
- Applied new methodology to three pilot areas;
- Collected Geomorphology geographic information system Data;
- Collected Vegetation geographic information system Data;
- Collected Vegetation Pilot geographic information system Data; and
- Completing Data Compilation and Final Project Report.

**PROJECT CONTACT**

Jill S. Heaton  
University of Nevada, Reno  
Department of Geography  
1664 N. Virginia St. Mailstop 154  
Reno, NV 89557  
Office 775-784-8056  
Lab 775-784-6287  
Fax 775-784-1058  
jheaton@unr.edu

**FUNDING AMOUNT AWARDED**

\$1,300,000.00

**CONTRACT TERM**

10/07/2009 through 08/31/2011

Left to right, Lee Bice, Drs. Kyle House, Jim Trexler, Justin Skord and Xin Miao share information about field mapping techniques. August 2010.

*Photo credit, UNR G-Lab*

Dr. Heaton scanning hillside for signs of Acacia. January 2009.

*Photo credit, UNR G-Lab*



**LEAD AGENCY**  
United States Geological Survey

**PROJECT TITLE AND NUMBER**  
**Long Term Conservation Strategy for Palmers Chipmunk**  
2005-USGS-580  
SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to conduct a systematic inventory across the Spring Mountains to provide a scientific basis for a range-wide distribution map, test the hypotheses that Palmer's chipmunk occurs in greater relative abundance in areas of lower slopes, northerly aspects, and near permanent water sources within the elevation range of Ponderosa pine, White fir, and the Bristlecone pine tree species, and determine whether track plate methodology is an acceptable alternative to trapping of Palmer's chipmunk.

**PROJECT STATUS** - Completed

- Completed more than 15,000 trapping/tracking days;
- Tagged and released more than 1,000 target animals throughout the study area;
- Completed 39 one-kilometer transects along the entire lower and upper (elevation) distribution of the species range;
- Collected and analyzed more than 220 genetic samples from target animals along transects for positive identification;
- Conducted tracking plate methodology and identified and counted species tracks;
- Measured, entered into a database, and analyzed vegetation surrounding each of the 1,920 trapping sites;
- Established the ecology and distribution of an important endemic species; and
- Created and delivered an adaptive monitoring protocol.

**PROJECT CONTACT**

Elisabeth Ammon  
Executive Director  
Great Basin Bird Observatory  
1755 E. Plumb Lane #256A  
Reno, NV 89502  
775-323-4226  
ammon@gbbo.org

**FUNDING AMOUNT AWARDED**

\$276,447.00

**CONTRACT TERM**

02/09/2008 through 12/19/2010



Palmer's chipmunk.

Palmer's chipmunk habitat.

**LEAD AGENCY****Great Basin Bird Observatory****PROJECT TITLE AND NUMBER****Developing Habitat Models and Monitoring Techniques for Nine Rare Birds**

2005-GBBO-581

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project is to study and collect monitoring data and develop habitat models for nine bird species including six species covered by the Multiple Species Habitat Conservation Plan and three evaluation species. Monitoring data are collected using standard methods similar to those used in the Nevada Bird Count, Great Basin Bird Observatory's state-wide monitoring effort. The six covered species include the Southwestern Willow Flycatcher, Blue Grosbeak, Phainopepla, Summer Tanager, Vermilion Flycatcher, and Arizona's Bell's Vireo, and the three evaluation species include Bendire's Thrasher, Le Conte's Thrasher, and Gray Vireo. Great Basin Bird Observatory will estimate population sizes for each of these nine species within Clark County, develop habitat models for each species, map occupied and suitable habitat in Clark County, and improve methods of population monitoring where improvements are needed.

**PROJECT STATUS** - In Progress

- Used a combination of point count transects and area searches for population monitoring for the nine species;
- Used randomly-selected survey plots to determine bird densities, obtain nesting data, and generate intensive inventory data for high priority sites;
- Used double-sampling in combination with the rapid point count surveys in order to provide correction factors for density estimates;
- Collected three field seasons of field data in 2008 through 2010, with 24 area searches and 415 point count surveys completed across 103 transects;
- Completing fourth season of data collection; and
- Completing habitat assessments to lead to habitat suitability criteria for the nine targeted species using both rapid assessments and fairly intensive vegetation measurements and ground-truthing of landscape variables on the randomly-selected point count transect locations in order to relate presence of a bird species with habitat conditions and landscape variables.

**PROJECT CONTACT**

Elisabeth Ammon  
Executive Director  
Great Basin Bird Observatory  
1755 E. Plumb Lane #256A  
Reno, NV 89502  
775-323-4226  
ammon@gbbo.org

**FUNDING AMOUNT AWARDED**

\$719,939.00

**CONTRACT TERM**

10/16/2007 through 03/31/2014

Joshua Tree Forest.

Cactus Wren nest in Joshua Tree.



**LEAD AGENCY**  
**United States Geological Survey**

**PROJECT TITLE AND NUMBER**

**Population Status and Reproductive Ecology of the Western Burrowing Owl**  
2005-USGS-582  
SMPLMA R6

**PROJECT DESCRIPTION**

The purpose of this project was to conduct surveys to assess the current distribution and relative abundance of the Western Burrowing Owl in Clark County, evaluate reproductive success of burrowing owls, assess its relationship to habitat and environmental variables, and relate owl occurrence to habitat and environmental variables at landscape scales for modeling Western Burrowing Owl potential habitat. Detection probability and effective area sampled estimates were incorporated into the survey protocol and used to adjust density estimates.

**PROJECT STATUS** - Completed

- Conducted 95 unique 3.2-km transect surveys for the Western Burrowing Owl using call-playback techniques covering 608 km<sup>2</sup> throughout Clark County;
- Conducted 61 transect surveys during the 2008 breeding season in the four habitat types;
- Conducted 34 new transect surveys in 2009 in the two desert scrub habitat types;
- Repeated 29 of the 2008 transects conducted in the two desert scrub habitat types and repeated five of the 2008 transects in the blackbrush habitat for a total of 68 transects surveyed during 2009;
- Monitored 60 nest sites/burrows and determined reproductive success, both apparent nest success and productivity estimates, for the two years (2008-2009) and the two desert scrub habitat types;
- Investigated nest-site selection and its relationship to nesting success for the two desert scrub habitat types with the two years combined;
- Assessed potential habitat at the landscape scale for the Western Burrowing Owl using geographic information system techniques for Clark County; and
- Followed quality assurance and quality control for data collection for this project and data set.

**PROJECT CONTACT**

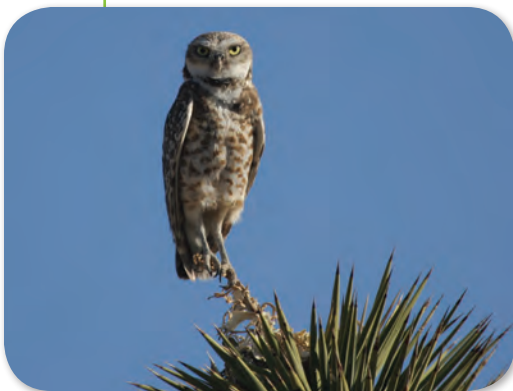
Kathleen Longshore  
United States Geological Survey  
Western Ecological Research Center  
Las Vegas Field Station  
160 N. Stephanie St.  
Henderson, NV 89074  
702-564-4505

**FUNDING AMOUNT AWARDED**

\$415,051.00

**CONTRACT TERM**

11/20/2007 through 6/20/2010



A Western Burrowing Owl perched in a Joshua tree near a nest burrow in the eastern Mojave Desert of Clark County.

A field crew member measuring nest-site characteristics at the nest burrow of a Western Burrowing Owl in the eastern Mojave Desert of Clark County.

## LEAD AGENCY

University of Nevada, Reno

## PROJECT TITLE AND NUMBER

**Desert Tortoise Monitoring**

2005-UNR-585

SNPLMA R6

## PROJECT DESCRIPTION

The purpose of this project was to assist the United States Fish and Wildlife Service with its desert tortoise monitoring training program. This project developed more efficient training and monitoring techniques to more effectively track trends in the status of tortoise populations in Clark County. The project encompassed data review and analysis, development of a preliminary assessment of distribution of threat indicators, and development of a preliminary predictive desert tortoise activity model. The project goals were to conduct baseline density monitoring to determine population trends and evaluate management actions and threats, research effectiveness monitoring and determine needed improvements or modifications, and conduct intensive, uniform training of tortoise monitors that would increase accuracy of the data.

## PROJECT STATUS - Completed

- Coordinated closely with the United States Fish and Wildlife Service for the related Desert Tortoise Monitoring project, 2005-USFWS-585A;
- Prepared instructional and training materials for training;
- Assisted the United States Fish and Wildlife Service with training field crews;
- Conducted regular field data quality assurance/quality control review during field data collection;
- Conducted the annual final data quality assurance/quality control review
- Conducted the annual data analysis;
- Conducted a preliminary assessment of distribution of threat indicators and tortoises; and
- Developed a preliminary predictive desert tortoise activity model.

## PROJECT CONTACT

Jill S. Heaton  
University of Nevada, Reno  
Department of Geography  
1664 N. Virginia St. Mailstop 154  
Reno, NV 89557  
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<http://www.glab.unr.edu/>

## FUNDING AMOUNT AWARDED

\$1,217,071.76

## CONTRACT TERM

04/30/2007 through 11/02/2009

Field crew training.



LEAD AGENCY

United States Fish and Wildlife Service

PROJECT TITLE AND NUMBER

**Desert Tortoise Monitoring**

2005-USFWS-585A

SNPLMA R6

PROJECT DESCRIPTION

The purpose of this project was to implement desert tortoise monitoring protocol and improvements. Some improvements addressed the proposed objectives of increasing precision and developing a mechanism for characterizing the distribution of tortoises in Clark County. Other improvements, however, were general quality assurance steps that increase confidence in the quality and applicability of the data for answering questions about distribution and abundance of desert tortoises. Training and planning received concentrated attention in 2008 and corresponding improvements were seen in data quality control and in ability to complete transects in hard-to-reach areas.

PROJECT STATUS - Completed

- Oversaw development of an expanded, comprehensive monitoring handbook (USFWS 2008), partnering with University of Nevada, Reno and United States Geological Survey;
- Coordinated all components of data management integrating collection database development, training to reduce data entry errors, quality control training and procedures for field crews, second- and third-level quality control, and database product development partnering with University of Nevada, Reno, Great Basin Institute, Kiva Biological, Mojave Desert Ecosystem Program and Topoworks;
- Utilized data from previous years of monitoring to re-do study design to improve precision of tortoise density estimates;
- Implemented two new approaches in desert tortoise study design for 2007 and 2008 field seasons that resulted in improved precision of desert tortoise density estimates;
- Completed 286 transects partly or entirely in Clark County by Great Basin Institute in 2007; and
- Completed 443 transects partly or entirely in Clark County by Great Basin Institute in 2008.

PROJECT CONTACT

Linda Allison  
Desert Tortoise Monitoring Coordinator  
United States Fish and Wildlife Service  
1340 Financial Blvd. #234  
Reno, NV 89502  
775- 861-6324  
Linda\_Allison@fws.gov

FUNDING AMOUNT AWARDED

\$1,372,218.00

CONTRACT TERM

9/18/2007 through 10/01/2009



Tortoise models used for training and practice before the field season are molded and painted to look realistic.  
*Photo credit, Linda Allison, United States Fish and Wildlife Service*

Field crews learn on training lines how to walk transects, scan for tortoises and measure distances of the models from the transect line.  
*Photo credit, Kelly Slade, Clark County Desert Conservation Program*



LEAD AGENCY

University of North Texas

PROJECT TITLE AND NUMBER

**Impact of Nutritional Stress on Upper Respiratory Tract Disease and Immune Function in the Desert Tortoise**

2005-NTU-602A

SMPLMA R6

PROJECT DESCRIPTION

The purpose of this study was to research interactions between nutrition, immune function, and Upper Respiratory Tract Disease using controlled dietary studies, independent challenge to the immune system, and experimental infection of tortoises with a causative agent of Upper Respiratory Tract Disease.

PROJECT STATUS - Cancelled

Project was cancelled on June 10, 2009 when it was determined that the interlocal agreement could not be continued due to the University of North Texas's inability to obtain sufficient tortoises for the study.

PROJECT CONTACT

Dr. Jerry Simecka  
Professor, Chair  
University of North Texas,  
Health Science Center  
3500 Camp Bowie Blvd.  
Fort Worth, TX 76107  
817-735-2116  
jsimecka@hsc.unt.edu

FUNDING AMOUNT AWARDED

\$698,480.00

CONTRACT TERM

11/20/2007 through 6/20/2010

LEAD AGENCY

Jones and Stokes, ICF International

PROJECT TITLE AND NUMBER

**Las Vegas Bearpoppy and Las Vegas Buckwheat Inventory**

2005-JS-606A

SNPLMA R6

PROJECT DESCRIPTION

The purpose of this project was to conduct rare plant inventories for two rare plant species found in Clark County. The species were Las Vegas bearpoppy and Las Vegas buckwheat. The inventories were designed to obtain comprehensive knowledge of the species to further define their predictive ecological models including soil-landform relationship studies. A total of 36 four-hectare (ten-acre) plots were selected for surveys within the Gold Butte Geographic Unit.

PROJECT STATUS - Completed

- Developed a work plan and data management plan;
- Completed field surveys on 100% of the survey plots (36 survey plots);
- Located Las Vegas bearpoppy on or near several survey plots during the surveys;
- Processed and submitted field data to Clark County.

PROJECT CONTACT

Brad Schafer  
Project Manager  
Jones and Stokes, ICF International  
916-737-3000  
bschafer@jsanet.com

FUNDING AMOUNT AWARDED

\$55,000.00

CONTRACT TERM

03/17/2009 through 02/10/2010



Two photos of Las Vegas bearpoppy, taken in the Gold Butte geographic unit.

**LEAD AGENCY**

University of Nevada, Las Vegas

**PROJECT TITLE AND NUMBER****Gypsum Soils Analysis Technical Conditions**

2005-UNLV-609F

SNPLMA R6

**Archaeological Services**

2005-HRA-609G

SNPLMA R6

**PROJECT DESCRIPTION**

The purpose of these projects was to enhance efforts conducted in project 497B and 606A and to determine what, if any, soil-geomorphic variables influence the distribution of the Las Vegas buckwheat in Clark County. Key components of this project included high-resolution mapping of surficial geology, comprehensive field description of soil profile and soil surface characteristics, laboratory assessment of soil chemical and physical properties, and statistical interpretation of these combined datasets. Three study areas at Bitter Spring, Coyote Springs, and Gold Butte were selected based on their known buckwheat populations and for their distinct but partially overlapping soil landform types.

**PROJECT STATUS - In Progress**

- Described and sampled 96 soil profile and surface sites divided among the three study locations at Bitter Spring (30 sites), Coyote Springs (30 sites), and Gold Butte (36 sites);
- Completed laboratory analyses of 542 soil samples from the three study areas. Analyses included pH, EC, total C, N, and S, percent CaCO<sub>3</sub>, Cl<sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, NO<sub>3</sub><sup>-</sup>, plant available cations, cation exchange capacity, and laser particle size analysis;
- Purchased and processed Light Detection and Ranging topographic data to facilitate high-resolution mapping and solar insolation modeling of each of the three study areas;
- Collected soil profile and site data information including geomorphic information, plant density, parent material (lithology), biological soil crust coverage, and surface clast coverage;
- Completed field mapping and produced a 1:3,000-scale surficial geologic map for each study area, to be submitted as part of this project's Final Report; and
- Conducted statistical analyses of soil-geomorphologic (soil properties, whole-year insolation, surficial laboratory data.

Las Vegas Buckwheat in the Coyote Springs study area.

Baker and R. Fairchild collecting surface characterization data in the Bitter Spring study area.

**PROJECT CONTACT**

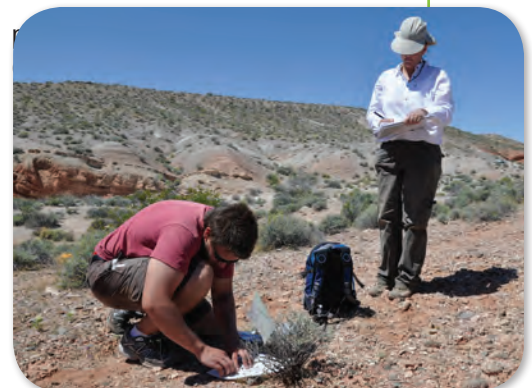
Brenda J. Buck, Ph.D.  
Professor, Director  
University of Nevada, Las Vegas  
Environmental Soil Analytical Laboratory  
Department of Geoscience  
4505 Maryland Parkway  
Las Vegas, NV 89154  
702-895-1694  
buckb@unlv.nevada.edu

**FUNDING AMOUNT AWARDED**

2005-UNLV-609F - \$340,000.00  
2005-HRA-609G - \$6,000.00

**CONTRACT TERM**

2005-UNLV-609F  
09/15/2009 through 10/01/2011  
2005-HRA-609G  
09/28/2009 through 06/30/2010



**LEAD AGENCY**

**Clark County Desert Conservation Program**

**PROJECT TITLE AND NUMBER**

**Desert Tortoise Pickup Service, Transfer, and Holding**

2007-CC-719

S10 07-09

**PROJECT DESCRIPTION**

This project manages a variety of activities related to wild desert tortoises as outlined in the Multiple Species Habitat Conservation Plan. It provides ongoing management of a wild desert tortoise hotline and pickup service to collect wild tortoises displaced from development and/or found wandering in urban areas in harm's way, as well as provides for a transfer and holding facility for these tortoises. During the active tortoise season (April–October), the hotline was checked a minimum of four times per day and a minimum of two times per day during the off-season (November–March). Call reasons ranged from people finding desert tortoises and wanting a pickup, people surrendering pets, information requests, and owners with lost pets looking to be reunited with their tortoises. Pickups generally occurred two to five times per week, depending on the total number of pickups. Tortoises were collected and taken to the Desert Tortoise Conservation Center, managed by the San Diego Zoo, and located southwest of the Las Vegas Valley. In addition, outreach materials and advertisements were produced to educate the public on what to do if they come across a wild tortoise and how to contact the desert tortoise hotline.

**PROJECT CONTACT**

John Brekke  
Environmental Specialist  
Clark County Desert Conservation Program  
333 N. Rancho, Ste. 625  
Las Vegas, NV 89106  
702-455-2722  
Brekke@ClarkCountyNV.gov

**FUNDING AMOUNT AWARDED**

\$800,000.00

**CONTRACT TERM**

Internal project, no contract term  
Budget start date:  
07/01/2009

The following subprojects/subcontracts were managed under this project:

|                 |              |             |
|-----------------|--------------|-------------|
| 2007-USFWS-719J | \$350,647.00 | Completed   |
| 2007-KLA-719L   | \$104,000.00 | Completed   |
| 2007-KLA-719M   | \$104,000.00 | In Progress |

**PROJECT STATUS - In Progress**

- Managed desert tortoise hotline and pickup service;
- Established and maintained a database with details of all calls received and pickups completed;
- Received 1,022 calls on the hotline;
- Completed 650 separate pickups;
- Collected, transported and delivered 866 desert tortoises (and an additional 64 non-desert tortoises) to the Desert Tortoise Conservation Center.
- Developed and ran 35 print advertisements in El Tiempo, CERCA, Mesquite Local News and Boulder City Review;
- Developed and distributed postcards with wild desert tortoise information; and
- Provided for care and management of collected wild desert tortoises through funding to the Desert Tortoise Conservation Center, managed by the United States Fish and Wildlife Service and San Diego Zoo.



Desert tortoise pickup service truck.



Collected desert tortoise in pickup crate.

**LEAD AGENCY****Buschelman Consulting, Inc.****PROJECT TITLE AND NUMBER****Surface Water Rights Consulting**

2007-CC-722

S10 07-09

**PROJECT DESCRIPTION**

The purpose of this project is to transfer stock water rights as a result of purchasing grazing allotments with the intent of providing undivided 1/3 interest to the Bureau of Land Management, Nevada Division of Wildlife and Clark County. In order for Clark County to hold permitted water rights, a series of applications, reports of conveyance, extensions of time, abstracts of water right titles, and proofs of completion and beneficial use needs to be completed and filed by Clark County and accepted by the Office of the State Engineer. The Clark County Desert Conservation Program hired Buschelman Consulting, Inc., to prepare and file the necessary paperwork to establish Clark County as the owner of record and to obtain permitted water rights on the remaining 33 of the original 59 surface water rights. The manner of use for the base rights will also be changed from stock water to wildlife and habitat preservation.

The following subprojects/subcontracts were managed under this project:

|                      |             |             |
|----------------------|-------------|-------------|
| 2007-BUSCHELMAN-722A | \$49,600.00 | In Progress |
| 2007-ATS-722B        | \$13,500.00 | Completed   |

**PROJECT STATUS - In Progress**

- Certified 23 surface water rights under Clark County's name and changed the manner of use to wildlife and habitat preservation;
- Withdrew five water rights applications due to lack of water;
- Permitted eight applications to change the manner of use and filed four applications to change use with the Office of the State Engineer;
- Confirmed the closure of the Gold Butte Grazing Allotment per Bureau of Land Management letter and acceptance by the Office of the State Engineer;
- Conveyed Gold Butte grazing allotment water rights from the Frei Family to the Nature Conservancy; and
- Proceeding with converting the manner of use for the 19 Gold Butte water rights to wildlife and habitat preservation, or a Water Right Deed to Clark County, allowing Clark County to proceed with conversion of the manner of use to wildlife and habitat preservation.

**PROJECT CONTACT**

Liz Bickmore  
Environmental Specialist  
333 N. Rancho, Ste. 625  
Las Vegas, NV 89106  
702-455-2972  
bickmore@ClackCountyNV.gov

**FUNDING AMOUNT AWARDED**

\$150,000.00

**CONTRACT TERM**

Internal project, no contract term  
Budget start date:  
06/30/2007

Red Bluff Springs water tank.



Red Bluff Springs spring.



**LEAD AGENCY**

**United States Fish and Wildlife Service**

**PROJECT TITLE AND NUMBER**

**Desert Tortoise Monitoring 2009**

2007-FWS-785

S10 07-09

**PROJECT DESCRIPTION**

The purpose of this project was to implement annual monitoring of desert tortoises in designated areas. This project marked the first year of range-wide monitoring that was coordinated exclusively by the United States Fish and Wildlife Service. The project also focused on improvements in general quality assurance steps that increase confidence in the quality and applicability of the data for answering questions about the abundance of desert tortoises.

**PROJECT STATUS - Complete**

- Oversaw and implemented improvements to desert tortoise monitoring training;
- Revised and expanded comprehensive monitoring handbook;
- Utilized crews from previous years to train new personnel on the correct protocol;
- Coordinated all components of data management: integrating collection database development, training to reduce data entry errors, quality control training and procedures for field crews, second- and third-level quality control, and database product development;
- Continued implementation of an approach first used in 2007. Transects were completed in three different regions of Nevada, one region at a time, so that tortoise activity in each area would represent a narrower period of time and there would be level variability (less imprecision) in visibility. Because visibility is used to correct density estimates, making this estimate more precise also improved the density estimate; and
- Completed 512 transects in 2009 for monitoring areas that were partly or entirely in Clark County.

**PROJECT CONTACT**

Linda Allison  
Desert Tortoise Monitoring Coordinator  
United States Fish and Wildlife Service  
1340 Financial Blvd. #234  
Reno, NV 89502  
775-861-6324  
Linda\_Allison@fws.gov

**FUNDING AMOUNT AWARDED**

\$983,000.00

**CONTRACT TERM**

10/21/2008 through 3/30/2010



Field crews walk in straight lines through the desert. By following a rope that is pulled by the leader, the follower walks the same path. The distance sampling technique uses the fact that tortoises farther from the line are less likely to be detected, but should still be included in population samples.

*Photo credit, Sarah Green, Great Basin Institute*

This view starts in the Gold Butte monitoring stratum. Part of the area monitored in Mormon Mesa can be seen in the distance.

*Photo credit, Linda Allison, United States Fish and Wildlife Service*

## LEAD AGENCY

Enduring Conservation Outcomes, LLC

## PROJECT TITLE AND NUMBER

**Multiple Species Habitat Conservation Plan Science Advisor**

2009-ECO-801A

S10 09-11

**Wesley E. Niles Herbarium Services**

2009-UNLV-801B

S10 09-11

## PROJECT DESCRIPTION

The purpose of this project is to provide independent assessment of Multiple Species Habitat Conservation Plan implementation. The Science Advisor provides programmatic analysis and science advice in making recommendations for future implementation and development of the Multiple Species Habitat Conservation Plan and the Adaptive Management Program. The Science Advisor reviews past efforts of the Multiple Species Habitat Conservation Plan (e.g., 2010 Adaptive Management Report, recommendations for the 2011-2013 Multiple Species Habitat Conservation Plan Implementation Plan and Budget, evaluating data for the Species Status Database) and makes recommendations on future actions. The Science Advisor also assists the Desert Conservation Program in developing future actions, such as developing a monitoring protocol for the desert tortoise on the Boulder City Conservation Easement, redesigning the data fields and entering data in the Species Status Database, and modifying the organization and approach to the 2011 Multiple Species Habitat Conservation Plan Project Progress Symposium.

## PROJECT STATUS - In Progress

- Produced the 2010 Adaptive Management Report which included:
  - Assessment of recent land use trends and habitat losses, with a more detailed assessment of available data than previous reports;
  - Review and recommendations for two program databases (the Implementation Database and the Species Status Database); and
  - Assessment of the adaptive management capacity of the program;
- Provided recommendations for the 2011-2013 Multiple Species Habitat Conservation Plan Implementation Plan and Budget;
- Reviewed completed and ongoing projects in light of the broad goals and objectives of the Multiple Species Habitat Conservation Plan and provided recommendations for projects that could more efficiently and effectively achieve those goals, including an objective review of the long-term monitoring program (line distance sampling) for the desert tortoise;
- Redesigned the Multiple Species Habitat Conservation Plan Species Status Database after evaluating data available for 62 projects based on the concept of providing a summary of available data for each project;
- Developed a Draft Monitoring Protocol for Desert Tortoise. The protocol explores the use of occupancy sampling, rather than estimates of population numbers, as a way to assess the status of desert tortoise in the Boulder City Conservation Easement;
- Provided Science Expertise for a range of issues, including a review of the progress report on the Rare Plant Models Project, a review of the final report on restoration on the Muddy River, and a software program that allows the Desert Conservation Program staff to use a robust method of placing sampling units within a sampling universe; and
- Entering the evaluated data into the redesigned database and developing a User's Guide that provides a detailed description of each field in the database.

## PROJECT CONTACT

Robert D. Sutter  
Conservation Ecologist  
Enduring Conservation Outcomes, LLC  
652 Maupas Avenue  
Savannah, GA 31401  
919-949-4059  
rsutter@enduringconservation.com

## FUNDING AMOUNT AWARDED

2009-ECO-801A- \$501,105.00  
2009-UNLV-801B - \$5,000.00

## CONTRACT TERM

2009-ECO-801A  
10/06/2009 through 01/30/2013  
2009-UNLV-801B  
11/19/2010 through 12/31/2011

**LEAD AGENCY**  
**Clark County**

**PROJECT TITLE AND NUMBER**

**Boulder City Conservation Easement Management Plan**

2007-CC-714

S10 07-09

**Boulder City Conservation Easement Management, Maintenance and Law Enforcement**

2009-CC-802

S10 09-11

**Boulder City Conservation Easement Expansion**

2009-CC-813

S10 09-11

**Boulder City Conservation Easement Law Enforcement**

2011-CCBCCE-910

S10 11-13

**PROJECT DESCRIPTION**

The purpose of this project is to preserve the native plants and animals in the Boulder City Conservation Easement in accordance with the Multiple Species Habitat Conservation Plan, permit conditions and the conservation agreement between Clark County and Boulder City. The project is located in the Eldorado Valley south of the populated portion of Boulder City, Nevada. Management activities include: maintaining signage, fences and gates, collecting trash and conducting restoration activities.

This project also provides law enforcement services within the Boulder City Conservation Easement to patrol the property on a regular basis, educate users, and enforce applicable ordinances, resolutions, orders, regulations and prohibited uses to ensure the viability of the Boulder City Conservation Easement as a desert tortoise habitat. Boulder City Police Department coordinated law enforcement activities with other government law enforcement agencies (United States Fish and Wildlife Service, Bureau of Land Management and National Park Service) to ensure communication among agencies and consistent enforcement of laws protecting native species and habitats.

**PROJECT CONTACT**

John Brekke  
Environmental Specialist  
Clark County Desert Conservation Program  
333 N. Rancho, Ste. 625  
Las Vegas, NV 89106  
702-455-2722  
Brekke@ClarkCountyNV.gov

**FUNDING AMOUNT AWARDED**

\$261,906.00

**CONTRACT TERM**

Internal project, no contract term

Budget start dates:

2007-CC-14

07/01/2009

2009-CC-802

07/01/2009

2009-CC-813

07/01/2009

2011-CCBCCE-910

06/21/2011

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The following subprojects/subcontracts were managed under this project:

|                  |              |             |
|------------------|--------------|-------------|
| 2007-BOYD-714F   | \$12,650.00  | Completed   |
| 2007-OLIVER-714G | \$5,000.00   | Completed   |
| 2009-BC-802A     | \$261,906.00 | Completed   |
| 2009-FREE-813A   | \$4,950.00   | Completed   |
| 2009-TRI-813B    | \$813.00     | Completed   |
| 2011-BC-910A     | \$225,378.00 | In Progress |

**PROJECT STATUS** - In Progress

- Patrolled the Boulder City Conservation Easement for 3,420 hours;
- Travelled 46,931 miles on the various dirt roads within the Boulder City Conservation Easement;
- Contacted 654 persons who were using the Boulder City Conservation Easement for valid, legal purposes;
- Provided 222 maps and brochures to interested persons in the Boulder City Conservation Easement; and
- Issued three citations to persons violating the law.

Boulder City Conservation Easement landscape.



Law Enforcement officer and vehicle in the Boulder City Conservation Easement.



**LEAD AGENCY**

**Clark County Desert Conservation Program**

**PROJECT TITLE AND NUMBER**

**Management of Acquired Properties and Water Rights**

2009-CC-805

S10 09-11

**PROJECT DESCRIPTION**

The purpose of this project is to acquire and manage properties with existing wildlife habitat to support conservation and protection of species supported by the Clark County Multiple Species Habitat Conservation Plan.

The following subprojects/subcontracts were managed under this project:

|                 |              |             |
|-----------------|--------------|-------------|
| 2009-BOYD-805G  | \$34,975.00  | Completed   |
| 2009-BLM-805H   | \$150,000.00 | In Progress |
| 2009-NANCE-805I | \$19,415.00  | In Progress |
| 2009-CC-813     | \$25,000.00  | Completed   |

**PROJECT STATUS - In Progress**

- The Nature Conservancy transferred Shirley Perkins, Alamo and Henrie properties to Clark County Desert Conservation Program for habitat management;
- Entered into contract with Bureau of Land Management to conduct cadastral survey in the Virgin River;
  - Ongoing management of upper Muddy River properties to maintain wildlife habitat conditions;
  - Conduct weekly site visits at upper Muddy River sites;
  - Implemented fuel reduction activities at upper Muddy River sites;
  - Researched and documented issues and encumbrances, both existing and planned, on lands being considered for designation as Reserve Units; and
- Developing Implementation Plan for Perkins Pond.

**PROJECT CONTACT**

Sue Wainscott  
 Senior Environmental Specialist  
 Clark County Desert Conservation Program  
 333 N. Rancho, Ste. 625  
 Las Vegas, NV 89106  
 702-455-3859  
 Swainsco@ClarkCountyNV.gov

**FUNDING AMOUNT AWARDED**

\$255,000.00

**CONTRACT TERM**

07/01/2009 through 03/01/2013



Perkins Pond.



Perkins Property.



Alamo Property.

## LEAD AGENCY

United States Geological Survey

## PROJECT TITLE AND NUMBER

**Assessment of Post-Fire Rehabilitation of Desert Tortoise Habitat**

2009-USGS-808A

S10 09-11

## PROJECT DESCRIPTION

The purpose of this project is to rehabilitate desert tortoise habitat from the effects of fire to support recovery of the desert tortoise and many of the other reptile species covered under the Clark County Multiple Species Habitat Conservation Plan. Specific goals of this project are to 1) predict areas where exotic annual grasses create high fine fuels that may require control, 2) determine the post-fire treatments that are appropriate for re-vegetating burned tortoise habitat, and 3) identify native Mojave Desert plant species that will be suitable for re-establishment in extreme post-fire environments. The corresponding objectives to meet these goals include to 1) develop a spatial model of fine fuels based on monthly rainfall and fine fuel production across multiple fire locations, 2) relate the success of post-fire treatments on plant establishment as a function of local climate, and 3) determine which native species persist in the soil seed bank and rapidly produce canopy cover for tortoise forage and cover sites.

## PROJECT STATUS - In Progress

- Completed two years of monitoring for the survival of 722 greenhouse-raised seedlings of blackbrush and joint-fir that were planted with various soil moisture amendments at four fire locations;
- Completed two years of monitoring at four fire locations to evaluate the abilities of the pre-emergent herbicides impazapic and sulfometron methyl to suppress non-native invasive annual grasses and promote native soil seed reserves; and
- Completed two years of monitoring at six fire locations to assess the establishment of native annual and perennial plants that were broadcast into burned areas following the 2005 and 2006 wildfires.

## PROJECT CONTACT

Lesley DeFalco, Ph.D  
Research Plant Ecologist  
United States Geological Survey,  
Western Ecological Research Center  
160 N. Stephanie St.  
Henderson, NV 89074  
702-564-4507  
Lesley\_Defalco@usgs.gov

## FUNDING AMOUNT AWARDED

\$400,000.00

## CONTRACT TERM

04/06/2010 through 06/30/2013

Desert marigold successfully established in the Dry Rock Fire three years after an experimental plot was sprayed with a pre-emergent herbicide and seeded with native species.

*Photo credit, LA DeFalco,  
United States Geological Survey*

Plastic cones protect seedlings of black brush and joint-fir from herbivores after they were planted at the Loop Fire in Red Rock Canyon National Conservation Area.

*Photo credit, LA DeFalco,  
United States Geological Survey*



**LEAD AGENCY**  
**National Park Service**

**PROJECT TITLE AND NUMBER**  
**Relict Leopard Frog Conservation**  
2009-NPS-810A  
S10 09-11

**PROJECT DESCRIPTION**

This project is intended to provide conservation efforts toward the persistence of natural and established populations of the relict leopard frog and toward the establishment of additional populations. The project is a continuation of efforts funded by the Desert Conservation Program in the 2005-2007 and 2007-2009 bienniums. Conservation actions and continued conservation planning will be implemented as specified in a Conservation Agreement and Strategy for the relict leopard frog. The Conservation Agreement Strategy was voluntarily entered into by several signatory state and federal agencies and is managed by a multiagency conservation team. Efforts under this project include population monitoring, habitat improvements, headstarting/translocation.

**PROJECT STATUS - In Progress**

- Conducted spring-time monitoring surveys at eight natural sites and seven experimental translocation sites;
- Estimated population size at one site using mark-recapture method;
- Released 1,337 late-stage tadpoles and juvenile frogs to augment two experimental sites, establish one new site, and augment two natural sites as part of the spring headstarting/ translocation program;
- Completed compliance actions at the new site experimental site;
- Conducted sampling of relict leopard frogs for a pathogenic fungus that causes chytridiomycosis, an 'emergent disease' of amphibians at several sites, and provided assistance for sampling of bullfrogs within areas near one experimental relict leopard frog site; and
- Conducted actions to maintain important breeding habitat at a few sites with the major actions consisting of the rehabilitation of an artificial fish-free pond used by relict leopard frogs for breeding.

**PROJECT CONTACT**

Ross Haley  
Resource Management  
National Park Service  
Lake Mead National Recreation Area  
601 Nevada Highway  
Boulder City, NV 89005-4004  
ross\_haley@nps.gov

**FUNDING AMOUNT AWARDED**

\$270,000.00

**CONTRACT TERM**

01/18/ 2011 through 07/31/2014



University of Nevada Las Vegas Research Assistant, Rebeca Rivera, clears vegetation from an artificial pond used by relict leopard frogs for breeding, January 2011.

University of Nevada Las Vegas Research Assistant Professor, Jef Jaeger, swabs a relict leopard frog for chytridiomycosis (Bd) sampling, March 2011.

**LEAD AGENCY**

**Clark County Desert Conservation Program**

**PROJECT TITLE AND NUMBER**

**Permit Amendment 09-11**

2009-CC-814

S10 09-11

**Amendment of the Clark County Multiple Species Habitat Conservation Plan and Incidental Take Permit**

2007-CC-1011

SNPLMA R8

**Permit Amendment Administration**

2007-CC-1014

S10 07-09

**PROJECT DESCRIPTION**

These projects provide administration and support of the Permit Amendment for the Clark County Desert Conservation Program.

The following subprojects/subcontracts were managed under this project:

|                      |              |             |
|----------------------|--------------|-------------|
| 2009-SMART-814A      | \$44,500.00  | In Progress |
| 2007-NICHOLSON-1011A | \$385,000.00 | Completed   |
| 2007-PBSJ-1011B      | \$623,320.00 | In Progress |
| 2007-H2O-1011E       | \$42,900.00  | Completed   |
| 2007-NICHOLSON-1014A | \$280,470.00 | Completed   |
| 2007-EMS-1014B       | \$913,000.00 | In Progress |

**PROJECT STATUS - In Progress**

- Continued to prepare draft Amended Multiple Species Habitat Conservation Plan;
- Continued process development for centralized fee collection of tortoise fees for permit;
- Received comments from the United States Fish and Wildlife Service, Nevada, Nevada Department of Wildlife and the Bureau of Land Management on several sections of the Amended Multiple Species Habitat Conservation Plan and Environmental Impact Statement;
- Continued developing Species Handling Workshop in conjunction with United States Fish and Wildlife Service;
- Continued developing Desert Tortoise Construction Worker Training class;
- Continued to coordinate permit amendment progress with Permittees on a monthly basis;
- Continued meetings with the Bureau of Land Management and the United States Fish and Wildlife Service to discuss permit amendment and related issues including a proposed Reserve System;

*continued on next page*

- Developed draft Cooperative Management Agreement for management of the proposed Reserve System and provided to the Bureau of Land Management and the United States Fish and Wildlife Service for comment;
- Completed economic analysis of proposed conservation strategy;
- Received feedback from the United States Fish and Wildlife Service Region 9 Migratory Bird Office on the draft minimization package for burrowing owl; working to review and provide response back to United States Fish and Wildlife Service.

#### PROJECT CONTACT

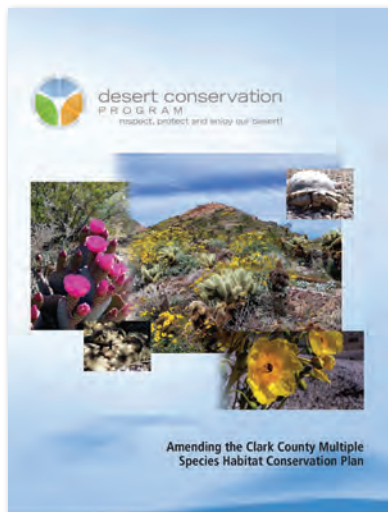
John Tennert  
Clark County Desert Conservation Program  
333 N. Rancho, Ste. 625  
Las Vegas, NV 89016  
702-455-0374  
tennert@clarkcountynv.gov

#### FUNDING AMOUNT AWARDED

2009-CC-814 - \$660,000.00  
2007-CC-1011 - \$2,672,120.00  
2007-CC-1014 - \$1,320,000.00

#### CONTRACT TERM

Internal project, no project term.  
Budget start dates:  
2007-CC-1014  
07/01/2007  
2009-CC-814  
07/01/2009  
2007-CC-1011  
09/05/2008



Mojave Desert.

Cover of Permit Amendment informational report.

# PROJECT INDEX TABLES







## SORTED BY FUNDING SOURCE

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | AMOUNT AWARDED          |
|----------------|----------------|--|--|-------------------------|
| 564            | S07 05-07      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Fencing Monitoring and Maintenance Projects                | 80,000.00 (Budgeted)    |
| 562            | S07 05-07      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Retro Fencing Projects                                     | 792,000.00 (Budgeted)   |
| 562E           | S07 05-07      | NEVADA DIVISION OF FORESTRY                  | Fencing  | 275,000.00              |
| 563            | S07 05-07      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | New Fencing Projects                                       | 1,500,000.00 (Budgeted) |
| 563A           | S07 05-07      | AMERICAN FENCE COMPANY                       | Tortoise Fencing Materials                                 | 247,940.00              |
| 546            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management Plan         | 30,000.00 (Budgeted)    |
| 719            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Pickup Service, Transfer and Holding       | 800,000.00 (Budgeted)   |
| 1014           | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Permit Amendment Administration                            | 1,320,000.00 (Budgeted) |
| 1014A          | S10 07-09      | RUTH NICHOLSON, CPF                          | Meeting Facilitation for DT Task Force                     | 280,470.00              |
| 1014B          | S10 07-09      | EBBINS MOSER AND SKAGGS, LLP                 | Permit Amendment Legal Counsel                             | 913,000.00              |
| 546A           | S10 07-09      | WATASH LLC                                   | Boulder City Conservation Easement Management Plan         | 30,000.00               |
| 714            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management Plan         | 300,000.00 (Budgeted)   |
| 714F           | S10 07-09      | BOYD CONSULTANTS LLC                         | Boulder City Conservation Easement Right of Way Consulting | 12,650.00               |
| 714G           | S10 07-09      | ROBERT OLIVER                                | Boulder City Law Enforcement Training                      | 5,000.00                |
| 719J           | S10 07-09      | UNITED STATES FISH AND WILDLIFE SERVICE      | Intake and Processing of Desert Tortoises                  | 350,647.00              |
| 719L           | S10 07-09      | KNIGHT AND LEAVITT ASSOCIATES                | Desert Tortoise Pick Up Service                            | 104,000.00              |
| 719M           | S10 07-09      | KNIGHT AND LEAVITT ASSOCIATES                | Desert Tortoise Pick Up Service                            | 104,000.00              |
| 719N           | S10 07-09      | LAS VEGAS REVIEW-JOURNAL                     | Pet Tortoise Advertisements                                | 14,771.00               |
| 722            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Acquired Land and Water Rights                             | 150,000.00 (Budgeted)   |
| 722A           | S10 07-09      | BUSCHELMAN CONSULTING, INC                   | Surface Water Rights Consulting                            | 49,600.00               |
| 722B           | S10 07-09      | AFFORDABLE TREE SERVICE                      | Muddy River Properties Firebreak and Tree Removal          | 13,500.00               |
| 785            | S10 07-09      | UNITED STATES FISH AND WILDLIFE SERVICE      | Desert Tortoise Monitoring 2009                            | 983,000.00              |
| 800            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Clark County Administration S10 FY09-10                    | 2,053,617.00 (Budgeted) |
| 801            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management Program                                | 974,950.00 (Budgeted)   |
| 801A           | S10 09-11      | ENDURING CONSERVATION OUTCOMES, LLC          | Multiple Species Habitat Conservation Plan Science Advisor | 501,105.00              |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | AMOUNT AWARDED        |
|----------------|----------------|--|--|-----------------------|
| 801B           | S10 09-11      | UNIVERSITY OF NEVADA LAS VEGAS               | Wesley E Niles Herbarium Services  | 5,000.00              |
| 802            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management, Maintenance and Law Enforcement | 340,000.00 (Budgeted) |
| 802A           | S10 09-11      | CITY OF BOULDER CITY                         | Boulder City Conservation Easement Law Enforcement                             | 261,906.00            |
| 803            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Hotline and Pick-Up Service                                    | 595,000.00 (Budgeted) |
| 804            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Fencing  | 425,000.00 (Budgeted) |
| 804A           | S10 09-11      | NEVADA DIVISION OF FORESTRY                  | Fencing Installation and Maintenance   | 40,000.00             |
| 805            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Management of Acquired Properties and Water Rights                             | 255,000.00 (Budgeted) |
| 805G           | S10 09-11      | BOYD CONSULTANTS LLC                         | Multiple Species Habitat Conservation Plan Reserve Plan Research               | 34,975.00             |
| 805H           | S10 09-11      | BUREAU OF LAND MANAGEMENT                    | Virgin River Cadastral Survey  | 150,000.00            |
| 805I           | S10 09-11      | DOUG NANCE                                   | Muddy River Property Management  | 19,415.00             |
| 806            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Public Information and Education   | 170,000.00 (Budgeted) |
| 808            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Assessment of Post-Fire Rehab of Desert Tortoise Habitat in Clark County       | 400,000.00 (Budgeted) |
| 808A           | S10 09-11      | UNITED STATES GEOLOGICAL SURVEY              | Assessment of Post-Fire Rehab of Desert Tortoise Habitat in Clark County       | 400,000.00            |
| 809            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Restoration of Desert Tortoise and Gypsum Habitat                              | 300,000.00 (Budgeted) |
| 810            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Relict Leopard Frog Conservation   | 270,000.00 (Budgeted) |
| 810A           | S10 09-11      | NATIONAL PARK SERVICE                        | Relict Leopard Frog Conservation   | 270,000.00            |
| 811            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Monitoring 2011  | 386,260.00 (Budgeted) |
| 812            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Virgin River Land Acquisition  | 25,000.00 (Budgeted)  |
| 813            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Expansion                                   | 70,000.00 (Budgeted)  |
| 813A           | S10 09-11      | FREE AND ASSOCIATES                          | Boulder City Conservation Easement Appraisal Fee                               | 4,950.00              |
| 813B           | S10 09-11      | TRI STATE SURVEYING LTD                      | Boulder City Conservation Easement Expansion Survey                            | 838.00                |
| 814            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Permit Amendment 09-11   | 660,000.00 (Budgeted) |
| 814A           | S10 09-11      | SMART GROWTH ENGINEERING                     | Development Process Analysis   | 44,500.00             |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | AMOUNT AWARDED          |
|----------------|----------------|--|--|-------------------------|
| 910            | S10 11-13      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management, Maintenance and Law Enforcement     | 453,000.00 (Budgeted)   |
| 910A           | S10 11-13      | CITY OF BOULDER CITY                         | Boulder City Conservation Easement Law Enforcement                                 | 225,378.00              |
| 499            | SNPLMA R6      | BUREAU OF LAND MANAGEMENT                    | Support of Virgin River Conservation Management Strategy                           | 282,285.30              |
| 537            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Interagency Weed Sentry Project  | 905,688.00              |
| 567            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO                   | Epidemiology of Desert Tortoise  | 779,726.00              |
| 582            | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY              | Population Status and Reproductive Ecology of the Western Burrowing Owl            | 415,051.00              |
| 583            | SNPLMA R6      | UNITED STATES DEPARTMENT OF AGRICULTURE      | Native Bee Pollinators Status and Plant Relationships                              | 261,696.00              |
| 585            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO                   | Desert Tortoise Monitoring   | 1,217,071.76            |
| 475            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Peregrine Falcon Monitoring at Lake Mead National Recreation Area                  | 30,120.00               |
| 476            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Relict Leopard Frog Monitoring and Management                                      | 333,000.00              |
| 497A           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Rare Plant Inventories   | 414,356.80 (Budgeted)   |
| 497B           | SNPLMA R6      | JONES AND STOKES, ICF INTERNATIONAL          | Rare Plant Inventories   | 414,356.00              |
| 502A           | SNPLMA R6      | NEVADA SYSTEM OF HIGHER EDUCATION            | Sediment Transport of Source Materials to White-margined Penstemon                 | 798,553.00              |
| 503            | SNPLMA R6      | BUREAU OF LAND MANAGEMENT                    | Roads Monitoring on BLM Lands  | 458,200.00              |
| 525            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Lake Mead GIS and Data Management Support  | 312,788.00              |
| 526            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Monitoring of Illegal Ground Disturbance   | 105,287.00              |
| 529            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Monitoring of Road Conditions and Signs  | 114,737.00              |
| 532            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Threats Research and Monitoring on Invasive Species Sahara Mustard                 | 88,674.00               |
| 535            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Inventory, Research, and Monitoring for Covered Plant Species                      | 347,054.00              |
| 536            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Inventory and Research for Watch and Evaluation Plant Species                      | 163,277.40              |
| 540            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Bald Eagle Monitoring  | 21,589.00               |
| 542            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Historical and Current Assessment of Six Covered and Three Evaluation Bird Species | 219,903.00              |
| 544P           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Conservation Program Administration   | 3,646,939.00 (Budgeted) |
| 549            | SNPLMA R6      | NEVADA DEPARTMENT OF WILDLIFE                | Peregrine Falcon Monitoring  | 25,611.30               |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE   | AMOUNT AWARDED          |
|----------------|----------------|--|---|-------------------------|
| 551            | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY              | Effects of Fuel Management Treatment in the Spring Mountains National Recreation Area | 321,501.00              |
| 552            | SNPLMA R6      | UNIVERSITY OF CALIFORNIA, SANTA BARBARA      | Effectiveness Monitoring of Wetlands and Riparian Restoration Treatments              | 946,389.00              |
| 553            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Media and Outreach Development  | 240,000.00 (Budgeted)   |
| 553-3-B        | SNPLMA R6      | BLVDS MAGAZINE                               | Stay on the Trails Print Advertisements   | 3,510.00                |
| 553-3-F        | SNPLMA R6      | LAS VEGAS REVIEW-JOURNAL                     | Print Advertising Campaign 2010-11  | 20,741.40               |
| 553-3-G        | SNPLMA R6      | KNPR (NEVADA PUBLIC RADIO)                   | Radio and Print Advertising Campaign 2010-11  | 20,000.00               |
| 553-3-H        | SNPLMA R6      | AEROTECH NEWS AND REVIEW                     | Nellis Air Force Base Advertising Campaign  | 20,000.00               |
| 553-4-A        | SNPLMA R6      | JOSHUA TREE PRODUCTIONS                      | Desert Conservation Program Video and Photos  | 5,000.00                |
| 553-6-H        | SNPLMA R6      | BLVDS MAGAZINE                               | Print Advertising Campaign 2010-11  | 9,900.00                |
| 553-6-J        | SNPLMA R6      | COX MEDIA LLC                                | Mojave Max Television Campaign Spring 2011  | 10,578.75               |
| 553-6-K        | SNPLMA R6      | NATALIE WOOD                                 | Mojave Max Website Development  | 2,000.00                |
| 553-8-A        | SNPLMA R6      | STEVE-N-KIDS                                 | Mojave Max Mascot Appearances   | 10,000.00               |
| 553-8-B        | SNPLMA R6      | STEVE-N-KIDS                                 | Mojave Max Mascot Appearances   | 23,000.00               |
| 557            | SNPLMA R6      | NEVADA NATURAL HERITAGE PROGRAM              | Sensitive Species Data Management   | 180,000.00              |
| 559            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Mojave Max Emergence Contest Partnership and Partnership Development                  | 440,000.00 (Budgeted)   |
| 559A           | SNPLMA R6      | RED ROCK CANYON INTERPRETIVE ASSOCIATION     | Mojave Max Education Program Development  | 400,000.00              |
| 561            | SNPLMA R6      | THE NATURE CONSERVANCY                       | Muddy River Property Management Acquisition and Partner Coordination                  | 217,000.00              |
| 561B           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Muddy River Property Management and Acquisition                                       | 286,726.00 (Budgeted)   |
| 561C           | SNPLMA R6      | L J MCCORMICK ENTERPRISES INC                | Alamo Property Fuel Removal   | 21,357.00               |
| 561E           | SNPLMA R6      | GOTHIC LANDSCAPE INC                         | Henrie Property Fuel Removal  | 6,043.00                |
| 561F           | SNPLMA R6      | WHEELER'S ELECTRIC INC                       | Perkins Pump Timer Installation   | 580.00                  |
| 570B           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Butterfly Monitoring in the Spring Mountains  | 127,270.00 (Budgeted)   |
| 570C           | SNPLMA R6      | PINYON ENVIRONMENTAL ENGINEERING             | Butterfly Monitoring and Inventories  | 97,566.00               |
| 572            | SNPLMA R6      | THE NATURE CONSERVANCY                       | Effectiveness Monitoring for Saltcedar and Knapweed Control                           | 594,991.00              |
| 574            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management Program   | 2,950,335.00 (Budgeted) |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                               | PROJECT TITLE  | AMOUNT AWARDED        |
|----------------|----------------|---|--|-----------------------|
| 574B           | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY                 | Expert Advice  | 430,000.00            |
| 574D           | SNPLMA R6      | REMORTEL  | GIS Soils Data Professional Services   | 24,000.00             |
| 574M           | SNPLMA R6      | SOUND SCIENCE LLP                               | Peer Review for Multiple Species Habitat Conservation Plan Documents                                       | 22,000.00             |
| 574O           | SNPLMA R6      | CAPRICORN ENVIRONMENTAL, INC.                   | Peer Review Consultant   | 5,000.00              |
| 574P           | SNPLMA R6      | TERRASPECTRA GEOMATIC                           | Peer Review of GIS Data and Methods  | 23,000.00             |
| 574Q           | SNPLMA R6      | TERRASPECTRA GEOMATIC                           | Remote Sensing   | 15,000.00             |
| 574T           | SNPLMA R6      | PINYON ENVIRONMENTAL ENGINEERING                | Butterfly Monitoring Phase Two   | 11,866.00             |
| 577            | SNPLMA R6      | PARTNERS IN CONSERVATION                        | Partners in Conservation and Volunteer Support for Bureau of Land Management Roads Monitoring              | 254,588.00            |
| 578            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO                      | Ecosystem Indicators: Change Detection   | 1,300,000.00          |
| 580            | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY                 | Long Term Conservation Strategy for Palmers Chipmunk   | 276,447.00            |
| 581            | SNPLMA R6      | GREAT BASIN BIRD OBSERVATORY                    | Developing Habitat Models and Monitoring Techniques for Nine Rare Birds                                    | 719,939.00            |
| 585A           | SNPLMA R6      | UNITED STATES FISH AND WILDLIFE SERVICE         | Desert Tortoise Monitoring   | 1,372,218.00          |
| 602A           | SNPLMA R6      | UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER | Impact of Nutritional Stress on Upper Respiratory Tract Disease and Immune Function in the Desert Tortoise | 698,480.00            |
| 605            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT    | Volunteer Resource Stewardship Pilot Program   | 250,000.00 (Budgeted) |
| 606            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT    | Buckwheat and Bearpoppy Inventory  | 55,000.00 (Budgeted)  |
| 609            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT    | Adaptive Management of Information Gathering and Analysis Projects   | 500,000.00 (Budgeted) |
| 609A           | SNPLMA R6      | NATIONAL PARK SERVICE                           | Conceptual and Habitat Models of Six Covered and Three Evaluation Bird Species                             | 133,500.00            |
| 609B           | SNPLMA R6      | NATIONAL PARK SERVICE                           | Bald Eagle Habitat Modeling  | 18,135.00             |
| 609C           | SNPLMA R6      | NATIONAL PARK SERVICE                           | Habitat Model for Peregrine Falcon   | 14,853.00             |
| 609D           | SNPLMA R6      | NEVADA DEPARTMENT OF WILDLIFE                   | Peregrine Falcon Modeling  | 14,000.00             |
| 609E           | SNPLMA R6      | NATIONAL PARK SERVICE                           | Technical Conditions   | 23,500.00             |
| 609F           | SNPLMA R6      | UNIVERSITY OF NEVADA, LAS VEGAS                 | Gypsum Soils Analysis Technical Conditions   | 340,000.00            |
| 609G           | SNPLMA R6      | HRA, INC.                                       | Archaeological Services  | 6,000.00              |
| 575            | SNPLMA R7      | UNIVERSITY OF NEVADA, LAS VEGAS                 | Connectivity of Leopard Frog Populations   | 147,836.00            |
| 574L           | SNPLMA R7      | TERRASPECTRA GEOMATIC                           | Remote Sensing   | 25,000.00             |
| 606A           | SNPLMA R7      | JONES AND STOKES, ICF INTERNATIONAL             | Buckwheat and Bearpoppy Inventory  | 55,000.00             |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE   | AMOUNT AWARDED          |
|----------------|----------------|--|---|-------------------------|
| 1011           | SNPLMA R8      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Amendment of the Clark County Multiple Species Habitat Conservation Plan and Incidental Take Permit | 2,672,120.00 (Budgeted) |
| 1011A          | SNPLMA R8      | RUTH NICHOLSON, CPF                          | Meeting, Facilitation Permit Amendment  | 385,000.00              |
| 1011B          | SNPLMA R8      | PBS AND J                                    | Biological Environmental Consultant   | 623,320.00              |
| 1011E          | SNPLMA R8      | H2OUTREACH, LLC                              | Meeting Facilitation and Process Consultation   | 42,900.00               |
| 1012           | SNPLMA R8      | UNITED STATES FISH AND WILDLIFE SERVICE      | Desert Tortoise Monitoring  | 1,320,000.00            |
| 705            | SNPLMA R8      | BUREAU OF LAND MANAGEMENT                    | Road Designation and Monitoring   | 223,061.00              |

## SORTED BY AGENCY/CONTRACTOR

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE   | AMOUNT AWARDED          |
|----------------|----------------|--|---|-------------------------|
| 553-3-H        | SNPLMA R6      | AEROTECH NEWS AND REVIEW                     | Nellis Air Force Base Advertising Campaign  | 20,000.00               |
| 722B           | S10 07-09      | AFFORDABLE TREE SERVICE                      | Muddy River Properties Firebreak and Tree Removal   | 13,500.00               |
| 563A           | S07 05-07      | AMERICAN FENCE COMPANY                       | Tortoise Fencing Materials  | 247,940.00              |
| 553-3-B        | SNPLMA R6      | BLVDS MAGAZINE                               | Stay on the Trails Print Advertisements   | 3,510.00                |
| 714F           | S10 07-09      | BOYD CONSULTANTS LLC                         | Boulder City Conservation Easement Right of Way Consulting  | 12,650.00               |
| 805G           | S10 09-11      | BOYD CONSULTANTS LLC                         | Multiple Species Habitat Conservation Plan Reserve Plan Research                                    | 34,975.00               |
| 499            | SNPLMA R6      | BUREAU OF LAND MANAGEMENT                    | Support of Virgin River Conservation Management Strategy  | 282,285.30              |
| 503            | SNPLMA R6      | BUREAU OF LAND MANAGEMENT                    | Roads Monitoring on BLM Lands   | 458,200.00              |
| 705            | SNPLMA R8      | BUREAU OF LAND MANAGEMENT                    | Road Designation and Monitoring   | 223,061.00              |
| 805H           | S10 09-11      | BUREAU OF LAND MANAGEMENT                    | Virgin River Cadastral Survey   | 150,000.00              |
| 722A           | S10 07-09      | BUSCHELMAN CONSULTING INC                    | Surface Water Rights Consulting   | 49,600.00               |
| 5740           | SNPLMA R6      | CAPRICORN ENVIRONMENTAL, INC.                | Peer Review Consultant  | 5,000.00                |
| 802A           | S10 09-11      | CITY OF BOULDER CITY                         | Boulder City Conservation Easement Law Enforcement  | 261,906.00              |
| 910A           | S10 11-13      | CITY OF BOULDER CITY                         | Boulder City Conservation Easement Law Enforcement  | 225,378.00              |
| 553-6-J        | SNPLMA R6      | COX MEDIA LLC                                | Mojave Max Television Campaign Spring 2011  | 10,578.75               |
| 804            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Fencing S10   | 425,000.00 (Budgeted)   |
| 809            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Restoration of Desert Tortoise and Gypsum Habitat   | 300,000.00 (Budgeted)   |
| 546            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management Plan  | 30,000.00 (Budgeted)    |
| 564            | S07 05-07      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Fencing Monitoring and Maintenance Projects   | 80,000.00 (Budgeted)    |
| 719            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Pickup Service, Transfer and Holding  | 800,000.00 (Budgeted)   |
| 1011           | SNPLMA R8      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Amendment of the Clark County Multiple Species Habitat Conservation Plan and Incidental Take Permit | 2,672,120.00 (Budgeted) |
| 1014           | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Permit Amendment Administration   | 1,320,000.00 (Budgeted) |
| 497A           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Rare Plant Inventories  | 414,356.80 (Budgeted)   |
| 544P           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Conservation Program Administration  | 3,646,939.00 (Budgeted) |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | AMOUNT AWARDED          |
|----------------|----------------|--|--|-------------------------|
| 553            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Media and Outreach Development   | 240,000.00 (Budgeted)   |
| 559            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Mojave Max Emergence Contest Partnership and Partnership Development           | 440,000.00 (Budgeted)   |
| 561B           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Muddy River Property Management and Acquisition                                | 286,726.00 (Budgeted)   |
| 562            | S07 05-07      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Retro Fencing Projects   | 792,000.00 (Budgeted)   |
| 563            | S07 05-07      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | New Fencing Projects   | 1,500,000.00 (Budgeted) |
| 570B           | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Butterfly Monitoring in the Spring Mountains                                   | 127,270.00 (Budgeted)   |
| 574            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management Program  | 2,950,335.00 (Budgeted) |
| 605            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Volunteer Resource Stewardship Pilot Program                                   | 250,000.00 (Budgeted)   |
| 606            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Buckwheat and Bearpoppy Inventory  | 55,000.00 (Budgeted)    |
| 609            | SNPLMA R6      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management of Information Gathering and Analysis Projects             | 500,000.00 (Budgeted)   |
| 714            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management Plan                             | 300,000.00 (Budgeted)   |
| 722            | S10 07-09      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Acquired Land and Water Rights   | 150,000.00 (Budgeted)   |
| 800            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Clark County Administration S10 FY09-10  | 2,053,617.00 (Budgeted) |
| 801            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Adaptive Management Program  | 974,950.00 (Budgeted)   |
| 802            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management, Maintenance and Law Enforcement | 340,000.00 (Budgeted)   |
| 803            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Hotline and Pick-Up Service                                    | 595,000.00 (Budgeted)   |
| 805            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Management of Acquired Properties and Water Rights                             | 255,000.00 (Budgeted)   |
| 806            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Public Information and Education   | 170,000.00 (Budgeted)   |
| 808            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Assmt of Post-Fire Rehab of Desert Tortoise Habitat in Clark County            | 400,000.00 (Budgeted)   |
| 810            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Relict Leopard Frog Conservation   | 270,000.00 (Budgeted)   |



| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                            | PROJECT TITLE  | AMOUNT AWARDED        |
|----------------|----------------|--|--|-----------------------|
| 811            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Desert Tortoise Monitoring 2011  | 386,260.00 (Budgeted) |
| 812            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Virgin River Land Acquisition  | 25,000.00 (Budgeted)  |
| 813            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Expansion                                   | 70,000.00 (Budgeted)  |
| 814            | S10 09-11      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Permit Amendment 09-11   | 660,000.00 (Budgeted) |
| 910            | S10 11-13      | DESERT CONSERVATION PROGRAM - BUDGET ACCOUNT | Boulder City Conservation Easement Management, Maintenance and Law Enforcement | 453,000.00 (Budgeted) |
| 805I           | S10 09-11      | DOUG NANCE                                   | Muddy River Property Management  | 19,415.00             |
| 1014B          | S10 07-09      | EBBINS MOSER AND SKAGGS, LLP                 | Permit Amendment Legal Counsel   | 913,000.00            |
| 801A           | S10 09-11      | ENDURING CONSERVATION OUTCOMES, LLC          | Multiple Species Habitat Conservation Plan Science Advisor                     | 501,105.00            |
| 813A           | S10 09-11      | FREE AND ASSOCIATES                          | Boulder City Conservation Easement Appraisal Fee                               | 4,950.00              |
| 561E           | SNPLMA R6      | GOTHIC LANDSCAPE INC                         | Henrie Property Fuel Removal   | 6,043.00              |
| 581            | SNPLMA R6      | GREAT BASIN BIRD OBSERVATORY                 | Developing Habitat Models and Monitoring Techniques for Nine Rare Birds        | 719,939.00            |
| 1011E          | SNPLMA R8      | H2OUTREACH, LLC                              | Meeting Facilitation and Process Consultation                                  | 42,900.00             |
| 609G           | SNPLMA R6      | HRA, INC.                                    | Archaeological Services  | 6,000.00              |
| 497B           | SNPLMA R6      | JONES AND STOKES, ICF INTERNATIONAL          | Rare Plant Inventories   | 414,356.00            |
| 606A           | SNPLMA R7      | JONES AND STOKES, ICF INTL                   | Buckwheat and Bearpoppy Inventory  | 55,000.00             |
| 553-4-A        | SNPLMA R6      | JOSHUA TREE PRODUCTIONS                      | Desert Conservation Program Video and Photos                                   | 5,000.00              |
| 719L           | S10 07-09      | KNIGHT AND LEAVITT ASSOCIATES                | Desert Tortoise Pick Up Service  | 104,000.00            |
| 719M           | S10 07-09      | KNIGHT AND LEAVITT ASSOCIATES                | Desert Tortoise Pick Up Service  | 104,000.00            |
| 553-3-G        | SNPLMA R6      | KNPR (NEVADA PUBLIC RADIO)                   | Radio and Print Advertising Campaign 2010-11                                   | 20,000.00             |
| 561C           | SNPLMA R6      | L J MCCORMICK ENTERPRISES INC                | Alamo Property Fuel Removal  | 21,357.00             |
| 553-3-F        | SNPLMA R6      | LAS VEGAS REVIEW-JOURNAL                     | Print Advertising Campaign 2010-11   | 20,741.40             |
| 719N           | S10 07-09      | LAS VEGAS REVIEW-JOURNAL                     | Pet Tortoise Advertisements  | 14,771.00             |
| 553-6-K        | SNPLMA R6      | NATALIE WOOD                                 | Mojave Max Website Development   | 2,000.00              |
| 537            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Interagency Weed Sentry Project  | 905,688.00            |
| 475            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Peregrine Falcon Monitoring at Lake Mead National Recreation Area              | 30,120.00             |
| 476            | SNPLMA R6      | NATIONAL PARK SERVICE                        | Relict Leopard Frog Monitoring and Management                                  | 333,000.00            |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                        | PROJECT TITLE   | AMOUNT AWARDED |
|----------------|----------------|--|---|----------------|
| 525            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Lake Mead GIS and Data Management Support   | 312,788.00     |
| 526            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Monitoring of Illegal Ground Disturbance  | 105,287.00     |
| 529            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Monitoring of Road Conditions and Signs   | 114,737.00     |
| 532            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Threats Research and Monitoring on Invasive Species Sahara Mustard                            | 88,674.00      |
| 535            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Inventory, Research, and Monitoring for Covered Plant Species                                 | 347,054.00     |
| 536            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Inventory and Research for Watch and Evaluation Plant Species                                 | 163,277.40     |
| 540            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Bald Eagle Monitoring   | 21,589.00      |
| 542            | SNPLMA R6      | NATIONAL PARK SERVICE                    | Historical and Current Assessment of Six Covered and Three Evaluation Bird Species            | 219,903.00     |
| 609A           | SNPLMA R6      | NATIONAL PARK SERVICE                    | Conceptual and Habitat Models of Six Covered and Three Evaluation Bird Species                | 133,500.00     |
| 609B           | SNPLMA R6      | NATIONAL PARK SERVICE                    | Bald Eagle Habitat Modeling   | 18,135.00      |
| 609E           | SNPLMA R6      | NATIONAL PARK SERVICE                    | Technical Conditions  | 23,500.00      |
| 810A           | S10 09-11      | NATIONAL PARK SERVICE                    | Relict Leopard Frog Conservation  | 270,000.00     |
| 609C           | SNPLMA R6      | NATIONAL PARK SERVICE                    | Habitat Model for Peregrine Falcon  | 14,853.00      |
| 549            | SNPLMA R6      | NEVADA DEPARTMENT OF WILDLIFE            | Peregrine Falcon Monitoring   | 25,611.30      |
| 609D           | SNPLMA R6      | NEVADA DEPARTMENT OF WILDLIFE            | Peregrine Falcon Modeling   | 14,000.00      |
| 562E           | S07 05-07      | NEVADA DIVISION OF FORESTRY              | Fencing   | 275,000.00     |
| 804A           | S10 09-11      | NEVADA DIVISION OF FORESTRY              | Fencing Installation and Maintenance  | 40,000.00      |
| 557            | SNPLMA R6      | NEVADA NATURAL HERITAGE PROGRAM          | Sensitive Species Data Management   | 180,000.00     |
| 502A           | SNPLMA R6      | NEVADA SYSTEM OF HIGHER EDUCATION        | Sediment Transport of Source Materials to White-margined Penstemon                            | 798,553.00     |
| 577            | SNPLMA R6      | PARTNERS IN CONSERVATION                 | Partners in Conservation and Volunteer Support for Bureau of Land Management Roads Monitoring | 254,588.00     |
| 1011B          | SNPLMA R8      | PBS AND J                                | Biological Environmental Consultant   | 623,320.00     |
| 570C           | SNPLMA R6      | PINYON ENVIRONMENTAL ENGINEERING         | Butterfly Monitoring and Inventories  | 97,566.00      |
| 574T           | SNPLMA R6      | PINYON ENVIRONMENTAL ENGINEERING         | Butterfly Monitoring Phase Two  | 11,866.00      |
| 559A           | SNPLMA R6      | RED ROCK CANYON INTERPRETIVE ASSOCIATION | Mojave Max Education Program Development  | 400,000.00     |
| 574D           | SNPLMA R6      | REMORTEL                                 | GIS Soils Data Professional Services  | 24,000.00      |
| 714G           | S10 07-09      | ROBERT OLIVER                            | Boulder City Law Enforcement Training   | 5,000.00       |
| 1011A          | SNPLMA R8      | RUTH NICHOLSON, CPF                      | Meeting, Facilitation Permit Amendment  | 385,000.00     |

| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                       | PROJECT TITLE   | AMOUNT AWARDED |
|----------------|----------------|---|---|----------------|
| 1014A          | S10 07-09      | RUTH NICHOLSON, CPF                     | Meeting Facilitation for DT Task Force  | 280,470.00     |
| 814A           | S10 09-11      | SMART GROWTH ENGINEERING                | Development Process Analysis  | 44,500.00      |
| 574M           | SNPLMA R6      | SOUND SCIENCE LLP                       | Peer Review for Multiple Species Habitat Conservation Plan Documents                  | 22,000.00      |
| 553-8-A        | SNPLMA R6      | STEVE-N-KIDS                            | Mojave Max Mascot Appearances   | 10,000.00      |
| 553-8-B        | SNPLMA R6      | STEVE-N-KIDS                            | Mojave Max Mascot Appearances   | 23,000.00      |
| 574L           | SNPLMA R7      | TERRASPECTRA GEOMATIC                   | Remote Sensing  | 25,000.00      |
| 574P           | SNPLMA R6      | TERRASPECTRA GEOMATIC                   | Peer Review of GIS Data and Methods   | 23,000.00      |
| 574Q           | SNPLMA R6      | TERRASPECTRA GEOMATIC                   | Remote Sensing  | 15,000.00      |
| 561            | SNPLMA R6      | THE NATURE CONSERVANCY                  | Muddy River Property Management Acquisition and Partner Coordination                  | 217,000.00     |
| 572            | SNPLMA R6      | THE NATURE CONSERVANCY                  | Effectiveness Monitoring for Saltcedar and Knapweed Control                           | 594,991.00     |
| 813B           | S10 09-11      | TRI STATE SURVEYING LTD                 | Boulder City Conservation Easement Expansion Survey                                   | 838.00         |
| 583            | SNPLMA R6      | UNITED STATES DEPARTMENT OF AGRICULTURE | Native Bee Pollinators Status and Plant Relationships                                 | 261,696.00     |
| 585A           | SNPLMA R6      | UNITED STATES FISH AND WILDLIFE SERVICE | Desert Tortoise Monitoring  | 1,372,218.00   |
| 719J           | S10 07-09      | UNITED STATES FISH AND WILDLIFE SERVICE | Intake and Processing of Desert Tortoises   | 350,647.00     |
| 785            | S10 07-09      | UNITED STATES FISH AND WILDLIFE SERVICE | Desert Tortoise Monitoring 2009   | 983,000.00     |
| 1012           | SNPLMA R8      | UNITED STATES FISH AND WILDLIFE SERVICE | Desert Tortoise Monitoring  | 1,320,000.00   |
| 582            | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY         | Population Status and Reproductive Ecology of the Western Burrowing Owl               | 415,051.00     |
| 551            | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY         | Effects of Fuel Management Treatment in the Spring Mountains National Recreation Area | 321,501.00     |
| 574B           | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY         | Expert Advice   | 430,000.00     |
| 580            | SNPLMA R6      | UNITED STATES GEOLOGICAL SURVEY         | Long Term Conservation Strategy for Palmers Chipmunk                                  | 276,447.00     |
| 808A           | S10 09-11      | UNITED STATES GEOLOGICAL SURVEY         | Assessment of Post-Fire Rehab of Desert Tortoise Habitat in Clark County              | 400,000.00     |
| 552            | SNPLMA R6      | UNIVERSITY OF CALIFORNIA, SANTA BARBARA | Effectiveness Monitoring of Wetlands and Riparian Restoration Treatments              | 946,389.00     |
| 575            | SNPLMA R7      | UNIVERSITY OF NEVADA, LAS VEGAS         | Connectivity of Leopard Frog Populations  | 147,836.00     |
| 609F           | SNPLMA R6      | UNIVERSITY OF NEVADA, LAS VEGAS         | Gypsum Soils Analysis Technical Conditions  | 340,000.00     |
| 801B           | S10 09-11      | UNIVERSITY OF NEVADA, LAS VEGAS         | Wesley E Niles Herbarium Services   | 5,000.00       |
| 567            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO              | Epidemiology of Desert Tortoise   | 779,726.00     |
| 585            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO              | Desert Tortoise Monitoring  | 1,217,071.76   |

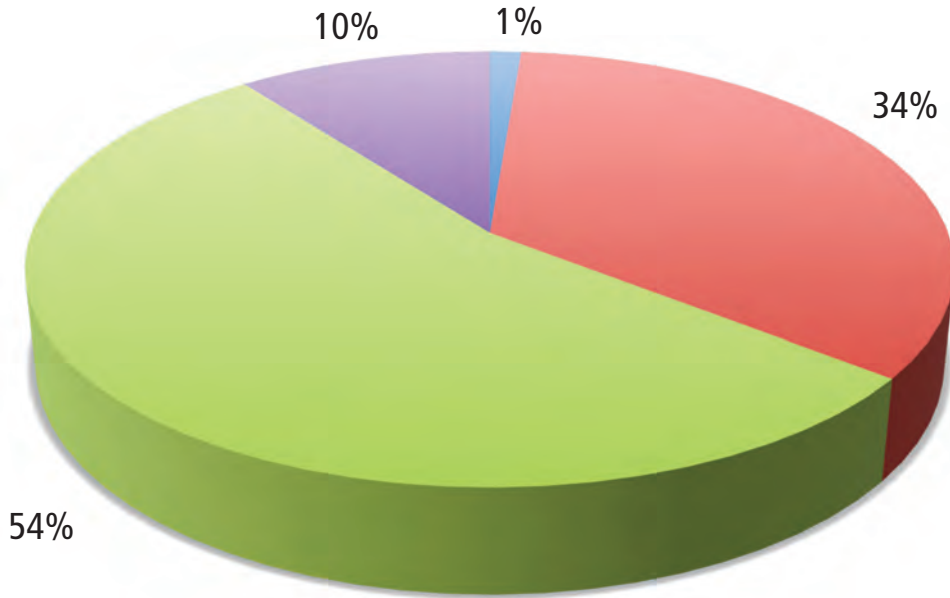
| PROJECT NUMBER | FUNDING SOURCE | AGENCY/CONTRACTOR                               | PROJECT TITLE  | AMOUNT AWARDED |
|----------------|----------------|---|--|----------------|
| 578            | SNPLMA R6      | UNIVERSITY OF NEVADA, RENO                      | Ecosystem Indicators: Change Detection   | 1,300,000.00   |
| 602A           | SNPLMA R6      | UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER | Impact of Nutritional Stress on Upper Respiratory Tract Disease and Immune Function in the Desert Tortoise | 698,480.00     |
| 546A           | S10 07-09      | WATASH LLC                                      | Boulder City Conservation Easement Management Plan   | 30,000.00      |
| 561F           | SNPLMA R6      | WHEELER'S ELECTRIC INC                          | Perkins Pump Timer Installation  | 580.00         |

# FINANCIAL REPORT





**EXPENSES BY FUNDING SOURCE\***  
**July 1, 2009, through June 30, 2011**



|              |                        |
|--------------|------------------------|
| Section 7    | \$178,297.60           |
| Section 10   | \$4,790,285.41         |
| SNPLMA R6    | \$7,548,355.79         |
| SNPLMA R8    | \$1,448,704.05         |
| <b>Total</b> | <b>\$13,965,642.85</b> |

\*Unaudited



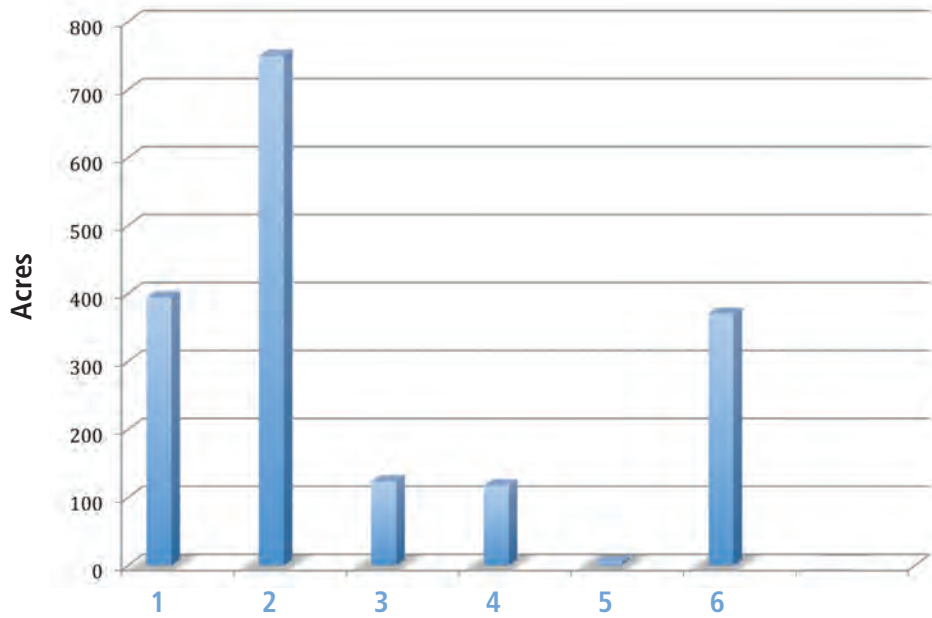


# LAND DISTURBANCE REPORTS



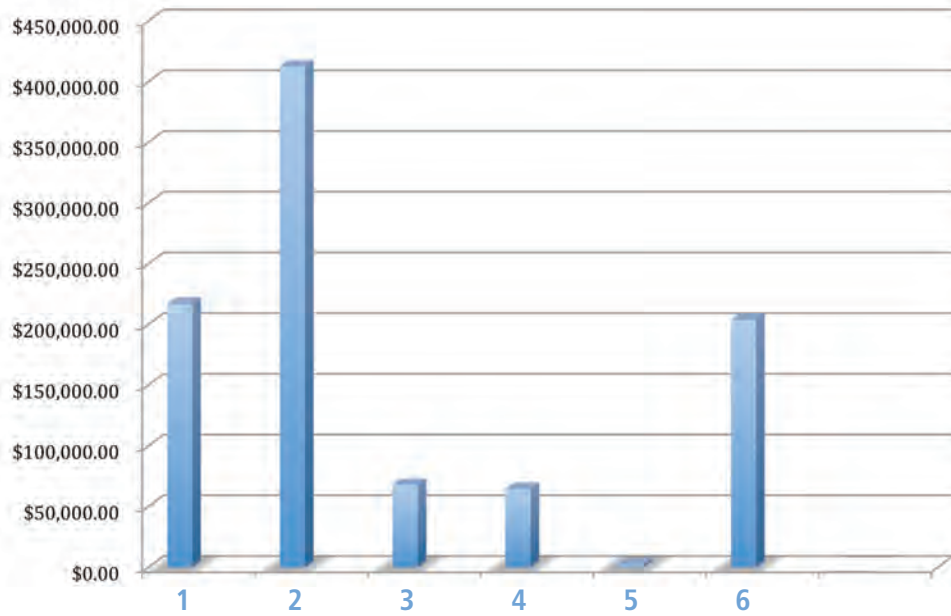


SECTION 10 ACRES DISTURBED  
 July 2009 through June 2011



|                   |                 |
|-------------------|-----------------|
| 1 Boulder City    | 394.46          |
| 2 Clark County    | 749.90          |
| 3 Henderson       | 123.51          |
| 4 Las Vegas       | 117.46          |
| 5 Mesquite        | 4.38            |
| 6 North Las Vegas | 370.34          |
| <b>Total</b>      | <b>1,760.05</b> |

**SECTION 10 REVENUE GENERATED**  
**July 2009 through June 2011**



|                   |                     |
|-------------------|---------------------|
| 1 Boulder City    | \$216,953.00        |
| 2 Clark County    | \$412,445.00        |
| 3 Henderson       | \$67,931.00         |
| 4 Las Vegas       | \$64,603.00         |
| 5 Mesquite        | \$2,409.00          |
| 6 North Las Vegas | \$203,687.00        |
| <b>Total</b>      | <b>\$968,028.00</b> |

# TORTOISE DISPOSITION SUMMARY





### DESERT TORTOISE DISPOSITION

Clark County's responsibilities regarding desert tortoise collection were established in the 1995 Desert Conservation Program and 2001 Multiple Species Habitat Conservation Plan and Section 10 Permit #TE034927-0. These documents outline the requirement to provide a pickup service to handle desert tortoises which are displaced by development or appear to be in harms way within urban areas under section C.3.a. Since 1996, the service has also been providing pickup of unwanted or stray pet desert tortoises.

On September 1, 2009 the Desert Conservation Program proposed to the Clark County Board of Commissioners the convening of a community task force to discuss and address pet and stray desert tortoise issues as a community problem requiring multiple stakeholder input. From the Desert Conservation Program's perspective, the collection and care of unwanted pet and stray tortoises were significant distractions from efforts to fund on-the-ground actions that can better conserve and protect wild tortoises. The effectiveness and cost-benefit of collecting and caring for pet and stray tortoises in comparison to the value and benefit of funding more meaningful and effective conservation actions for wild tortoises was problematic. In addition, escalating costs and associated requirements for the collection and care of unwanted pet and stray tortoises are neither justified nor sustainable. Finally, Clark County has no authority to address underlying issues that could solve this problem because the regulation of this species is within the purview of the United States Fish and Wildlife Service and Nevada Department of Wildlife.

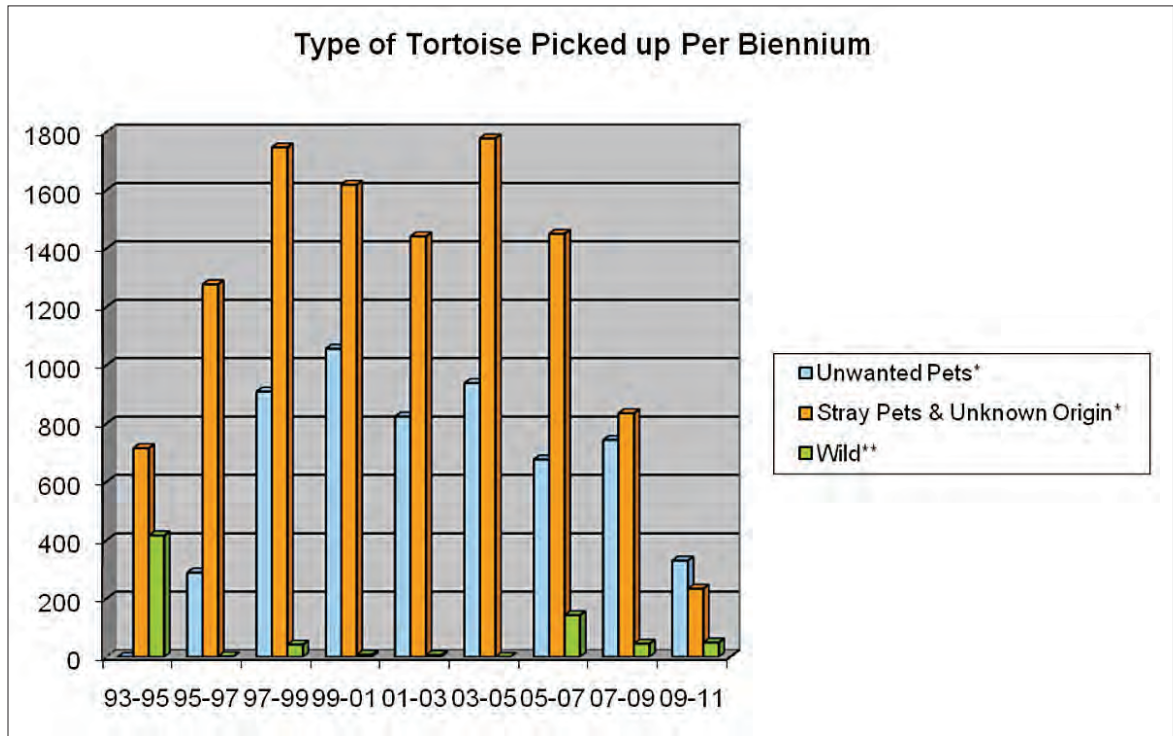
Given concerns with authority over threatened species and costs associated with a community task force, the Board directed staff to conduct a review of the Multiple Species Habitat Conservation Plan permit provisions with regard to pet and stray tortoises and prepare a resolution to cease collecting pet tortoises while ensuring full compliance with the Multiple Species Habitat Conservation Plan permit, in lieu of convening the task force.

Staff and the Clark County District Attorney's office reviewed all pertinent documents, including but not limited to the Multiple Species Habitat Conservation Plan and associated permit, biological opinion, implementing agreement, adaptive management memorandum of agreement and the 2009-2011 Implementation Plan and Budget. Clark County determined that ceasing the collection and care of unwanted and stray pet desert tortoises and focusing the same funds on more meaningful conservation actions for desert tortoise was consistent with the scope and requirements of these guiding documents. In October 2009, the Clark County Board of Commissioners passed a resolution to cease collection of pet and stray pet desert tortoises.

The Desert Conservation Program continues to collect wild tortoises found on construction sites or in harm's way. The United States Fish and Wildlife Service is currently free of charge and is provided to developers who do voluntary surveys of their property prior to disturbance and to individuals who find a wild tortoise wandering near urban development. All tortoises collected through the pickup service are taken to the Desert Tortoise Conservation Center, which is operated and managed by the San Diego Zoo and United States Fish and Wildlife Service. Ultimate disposition of these tortoises is at the discretion of the United States Fish and Wildlife Service.

# TORTOISE DISPOSITION SUMMARY

Table A, Type of Tortoise Collected per Biennium, displays the number of surrendered pets, stray pets, and wild tortoises collected since 1993.



\*Pick up of pet and stray pet desert tortoises was transitioned to United States Fish and Wildlife Service and San Diego Zoo in December 2009

\*\*Includes tortoises found through mandatory clearances in 93-95, then optional clearances after August 1995, and Coyote Springs in 05-07





