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# MEETING NOTICE AND AGENDA

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## ENVIRONMENTAL MITIGATION PROGRAM WORKING GROUP

The Environmental Mitigation Program Working Group may take action on any item appearing on this agenda.

September 11, 2007

1 to 3 p.m.

SANDAG, 8th Floor Conference Room A  
 401 B Street, Suite 800  
 San Diego, CA 92101-4231

Staff Contact: Keith Greer  
 (619) 699-7390  
 kgr@sandag.org

### AGENDA HIGHLIGHTS

- REFINING COST FOR HABITAT MANAGEMENT AND MONITORING
- CALIFORNIA GNATCATCHER POPULATION ESTIMATES AND POST-WILDFIRE RECOVERY PRESENTATIONS

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# ENVIRONMENTAL MITIGATION PROGRAM WORKING GROUP

Tuesday, September 11, 2007

| ITEM # |   | RECOMMENDATION                            |
|--------|---|---|
| 1.     | WELCOME AND INTRODUCTIONS<br>(Chair, Mayor Pro Tem Carrie Downey, City of Coronado)   |   |
| +2.    | SUMMARY OF AUGUST 14, 2007, MEETING<br><br>Review and approve the meeting summary of the August 14, 2007, meeting.  | APPROVE                                   |
| 3.     | PUBLIC COMMENTS AND COMMUNICATIONS<br><br>Members of the public will have the opportunity to address the Environmental Mitigation Program Working Group (EMPWG) on any issue within the jurisdiction of the Working Group. Speakers are limited to three minutes each.  | COMMENT                                   |
| +4.    | REFINING HABITAT COSTS FOR HABITAT MANAGEMENT AND MONITORING (Keith Greer)<br><br>Mr. Greer will provide information collected from land managers to help refine the cost of regional habitat preservation. Following this presentation, the EMPWG will continue discussion to assist SANDAG staff in the refinement of costs to be presented to the SANDAG Policy Board.   | DISCUSSION/<br>POSSIBLE<br>RECOMMENDATION |
| 5.     | CALIFORNIA GNATCATCHER POPULATION ASSESSMENT 2007 (CLARK WINCHELL, USFWS)<br><br>In December 2007, the SANDAG Board, based on recommendations from the EMPWG, approved funding a grant to conduct countywide monitoring of gnatcatchers (one of the flagship species for conservation) using peer-reviewed protocols established since 2002. The work has been completed and Mr. Winchell of the USFWS will present the results of the study and offer recommendations. | INFORMATION/<br>DISCUSSION                |

**ITEM #**

**RECOMMENDATION**

- 6. POST-FIRE MONITORING 2007 (Dr. Robert Fisher and Charlton Rochester, USGS)

INFORMATION/  
DISCUSSION

In December 2007, the SANDAG Board, based on recommendations from the EMPWG, approved funding a grant to investigate how animal communities and specific target species will recover from the 2003 Otay and Cedar fires which burned approximately 300,000 acres (half of the natural lands of the San Diego County Multiple Species Conservation Program (MSCP) planning area). The results of this year's study and previous year's studies in the same areas will be presented by Dr. Robert Fisher. In addition, Mr. Rochester will demonstrate how the data collected for this grant is being incorporated into the State Biogeographical Information System (BIOS) for long-term monitoring efforts.

- 7. ADJOURN

INFORMATION

The next EMPWG meeting is scheduled for October 9, 2007, from 1 to 3 p.m.

NOTE: The conference room will be available after the EMPWG adjourns until 3:30 p.m. for interested parties to continue to ask questions from the researchers about the California gnatcatcher and post-fire presentations.

+ next to an item indicates an attachment

**San Diego Association of Governments**  
**ENVIRONMENTAL MITIGATION PROGRAM**  
**WORKING GROUP**

September 11, 2007

AGENDA ITEM NO.: **2**

**Action Requested: APPROVE**

SUMMARY OF AUGUST 14, 2007, MEETING

File Number 3002700

**Members in Attendance:**

Carrie Downey (Chair), City of Coronado  
Tom Oberbauer (Vice Chair), County of San Diego  
Craig Adams, San Diego Conservation Network  
Jerry Livingston, Building Industry Association (alternate)  
Michael Beck, Endangered Habitats League  
Jim Whalen, Alliance for Habitat Conservation  
Patti Brindle, City of Poway, North County Inland  
Jeanne Korsch, City of San Diego  
Mike Grim, City of Carlsbad  
Maria Lundstedt, City of Chula Vista, South County  
Kevin Mallory, City of Santee, East Suburban Communities  
David Mayer, Department of Fish and Game  
Deborah Townsend, Wildlife Conservation Board  
Kathy Viatella, Nature Conservancy  
Paula Stigler, San Diego Foundation

**SANDAG Staff in Attendance:**

Keith Greer  
Kevin Wood  
C. Muggs Stoll  
Grace Chung  
Sue Carnevale

**Others in Attendance:**

Supervisor Pam Slater-Price, County of San Diego  
Trish Boaz, County of San Diego  
Dr. Jun Onaka, Onaka Planning and Economics  
Dahvia Lynch, County of San Diego  
Patrick Murphy, City of Encinitas  
Robert McNamara, San Diego County Grand Jury  
Ed Embly, San Diego County Grand Jury  
Scott Grimes, Endangered Habitats League  
Rachel Woodfield, Merkel & Associates  
Cindy Kinkade, EDAW  
Fred Sandquist, Batiquitos Lagoon Foundation

Markus Spiegelberg, Center for Natural Lands Management  
Glenn Smith, Smith Properties (Environmental Land Solutions)  
Jim Carter, Environmental Land Solutions  
Kit Wilson, Environmental Land Solutions  
Anne S. Fege, San Diego Natural History Museum  
Mike Nelson, San Diego River Conservancy  
David Zoutendyk, U.S. Fish and Wildlife Service

### **1. Welcome and Introductions**

Carrie Downey, Chair, called the meeting to order at 1:06 p.m., welcomed the group, and introductions were made.

### **2. June 12, 2007, Meeting Summary**

Craig Adams, San Diego Conservation Network, motioned to approve the May 8, 2007, meeting minutes. Michael Beck, Endangered Habitats League, seconded the motion. The motion was approved unanimously.

### **3. Public Comments and Communications**

Members of the public had the opportunity to address the Environmental Mitigation Program Working Group (EMPWG) on any issue within the jurisdiction of the Working Group.

Ms. Downey mentioned an e-mail sent by Diane Nygaard to Working Group members and said it will be attached to the record (attached to the minutes).

No other public comments were made.

### **4. July 13 Policy Board of Directors Meeting on Habitat Preservation and August 2 Regional Planning Committee (RPC)**

Keith Greer, SANDAG, provided an update to the Working Group on the recent discussions held at the July 13 Policy Board Meeting on Habitat Preservation and the August 2 Regional Planning Committee meeting.

The July 13 meeting was the third in a series of non-transportation infrastructure projects, and the presentation on habitat preservation went well. On October 12, the SANDAG Policy Board will consider all three items and decide where to go next.

On August 2, the accomplishments of the Working Group were presented to the RPC, as well as a proposed plan for the next six months. Mr. Greer shared some of these items with the Working Group. One of the more important tasks of the Working Group will be to make funding recommendations for the next year, based on the already established five-year funding plan. Mr. Greer presented a slide showing the estimated \$1.5 billion cost for completing the regional habitat conservation plans.

Chair Downey thought the presentation was well received and encouraged everyone to attend the October 12 Policy Board meeting. The Policy Board was pleased that they were given firm numbers, and it will be up to the Working Group to refine those numbers before the next meeting, which is part of the next item on the agenda.

## **5. Refining Habitat Costs for Habitat Management and Monitoring**

Mr. Greer introduced the item, noting that habitat management and monitoring is a substantial component of the overall costs of the regional habitat conservation plans. Dr. Jun Onaka presented his work on defining the cost of habitat management based upon the Multiple Habitat Conservation Program (MHCP). Trish Boaz of the County of San Diego presented information on actual and projected costs for managing and monitoring San Diego County open space. Mike Grim presented information on the costs of habitat management in the City of Carlsbad based on a Property Analysis Record prepared by the Center for Natural Lands Management (CNLM). Before presentations were given, Mr. Greer provided definitions to key terms to help establish a common basis of discussion, although there was some discussion as to whether the definitions were precise enough. Stewardship was defined as basic, non-biological management including trash removal and fence maintenance. Area Specific Management Directives (ASMDs) are specific lists of management actions for particular areas. Adaptive management includes the testing and implementation of various methodologies for enhancing native species and reducing non-native species.

Dr. Jun Onaka presented his work on estimating costs for the EMP. His estimations came out of work done on the MHCP and the Multiple Species Conservation Program (MSCP) South, and updated for the Integrated Regional Infrastructure Strategy (IRIS), an appendix of the Regional Comprehensive Plan (RCP). A current estimated cost of \$1.5 billion reflects an inflation adjusted figure from the 2004 numbers. His presentation focused on the annual management costs. Overall, there are about 240,000 acres of land in San Diego County that will need to be managed with public funds. Costs vary widely between different types of land, with the more urban and fragmented MHCP lands costing \$146 per acre and lands in the MSCP east estimated at \$70 per acre. The average cost for the whole county is around \$80 per acre a year. Mr. Beck asked for clarification about what kind of activities these numbers actually covered. Dr. Onaka said while they were more than just stewardship, there is a grey area as to what is covered under annual management, but assumptions had to be made in order to make an estimate.

Overall, there was a strong negative correlation between the size of a preserve and the cost per acre to manage it, although as previously noted this varied by type of habitat, with wetland and riparian habitat the most expensive to manage. This can be seen in the attached PowerPoint presentation (pages 10 and 11). This figure was created to estimate costs for the management component of the MHCP and provides a good general guide, but it is not the end-all of estimates.

There also was some question as to the need and size of the endowment proposed for the EMP, payments for which are close to 40 percent of the total costs. Jim Whalen, J. Whalen and Associates, noted that schools and roads are constantly in need of funding, yet there are no endowments for these things. Supervisor Slater-Price said that while there will always be state and federal funding for schools and roads, there is no guarantee of funding for habitat preservation in the future.

Trish Boaz presented information on the county's management of preserves at MSCP standards and said she would deliver a spreadsheet of the costs at the next meeting. The county uses a 200 acre increment when looking at costs and divides them into one-time stewardship and ASMD costs and ongoing costs. The general estimate is \$1000 an acre for initial stewardship. Ongoing costs include \$100 for stewardship and another \$100 for adaptive management and monitoring.

There was again some question as to what exactly was included in the costs. The preparation of ASMDs is a one-time cost separate from the initial stewardship. Mr. Whalen said that the private sector needed to know what it was getting for its money and it is currently hard to understand what was included for the cost.

Ms. Boaz said all the data was based on requirements and historical data and that the County does its best to provide accurate numbers, although the terminology the County uses is not always consistent with the language used by other jurisdictions. Markus Spiegelberg of the CNLM thought that a solid list of the assumptions that went into establishing the estimate was needed. The CNLM provides a complete line-item cost estimate for each preserve it manages, and with modern Geographic Information System technology, it should be possible to provide detailed numbers for all preserves. Vice Chair, Tom Oberbauer, noted that the costs of habitat management is already high and that there would be widespread voter dissatisfaction if the numbers proved inaccurate, so every effort should be taken to ensure the presented numbers are accurate.

The discussion was put on hold to allow Mike Grim for the City of Carlsbad to present. The costs of habitat management are particularly high in Carlsbad due to the extremely fragmented nature of preserves, with some as small as three acres, the necessity of bringing in outside biological expertise, and the large amount of land that is in private hands. Carlsbad's estimated cost was \$300 per acre for the first three years, with some reductions expected in subsequent years. The City of Carlsbad is reviewing these costs and attempting to refine them for their jurisdiction. This does not include all one-time costs such as preparation of the habitat management plan for the whole sub-area or the Open Space Management Plans (OSMPs) for the individual preserves, which are similar to the county's ASMDs.

The City of Carlsbad owns only 600 acres of the 6,400 acres of reserve land, with the rest in private and state reserves. The cost of management and monitoring is higher on the city-owned lands than on other lands where other parties are required to perform many of the management and monitoring costs. One challenge to good management is when neighborhoods developed a sense of entitlement to a piece of open space that is suddenly fenced off for preservation. One unique thing the city does, is the management of lands under contract from Home Owner's Associations (HOAs). Legally, the city can't require HOAs do anything unless it is codified in the permit for the original project, but the city has worked with HOAs to put language in the documents on file with the Department of Real Estate. If funding is available, the city might take greater responsibility for the HOA lands, but the HOAs have proved they are willing to work with the city on their own habitat preservation projects.

Mr. Greer sought input on what was needed to have a more meaningful discussion at the next Working Group meeting, and a large amount of input was given. There was a general feeling that the current state of management was not adequate. Suggested items included more clear definitions of terms and categories and the assumptions that the estimates were based on. Cost estimates have varied widely, and in order to meet regional goals, everyone needs to be on the same page. Some suggested that more data could be collected from different jurisdictions, but it was felt that a common basis for all data was needed in order to compare apples-to-apples.

One other thing that came up was whether a more budgetary approach could be taken towards habitat management. Instead of looking at what it would cost to manage all the land, one could look at how much money one has and decide how best to manage habitat with it. It was suggested that the Working Group also look at what the possible funding mechanisms are to be used in order to think about what could be done, although this is not what needs to be addressed in making the recommendations for the Policy Board on October 12.

## **6. Comprehensive Costal Lagoon Assessment**

Mr. Bruce April of Caltrans was unable to present due to an illness in the family. This Item will be moved to a future agenda.

## **7. Status of Environmental Mitigation Program (EMP) Agreement**

Mr. Greer provided an update to the Working Group on the status of the *TransNet* EMP Memorandum of Agreement (MOA) among the State Resources Agency, California Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS), and SANDAG. The unified position of SANDAG and Caltrans has been forwarded to DFG and USFWS. It now needs to be reviewed by that state and federal agencies.

## **8. Topics for September 11 Working Group Meeting**

Mr. Greer noted that presentations on the California Gnatcatchers and Post-fire Monitoring were scheduled for the next meeting and wondered if the meeting should be extended to allow for adequate time for the presentations and continued discussion on refining costs for habitat management. It was felt that the presentations should be limited to 30 minutes each, with 10 minutes for questions and answers. Any additional questions could be asked after the meeting adjourned.

## **9. Adjourn**

Ms. Downey adjourned the meeting at 2:58 p.m. The next meeting is scheduled for September 11, 2007, from 1 to 3 p.m.

**This Item Relates to  
Agenda Item #2  
EMPWG  
September 11, 2007**

**From:** diane nygaard [mailto:dandd2@peoplepc.com]

**Sent:** Monday, August 13, 2007 12:30 PM

**To:** Trish Boaz; Tom Oberbauer; Susanne Glasgow; Susan Wynn; Robert Fisher; Paula Stigler; Patti Brindle; Patrick Murphy; Mike Grim; Michael Beck; Melanie Johnson Rocks; Matt Adams; Marisa Lundstedt; Libby Lucas; Kevin Mallory; Kathy Viatella; Karen Bane; Julie Wiley; Jeanne Krosch; Jeanette Baker; Emily Young; Debra Townsend; Deborah Ruddock; David Mayer; Craig Benedetto; Craig Adams; Charlotte Pienkos; Carrie Downey; Bruce April; Barbara Redlitz; Ann Ellis; Alfredo Gonzalez; Greer, Keith  
**Cc:** Yvonne Moore; Therese O'Rourke; Terri Stewart; Teri Fenner; Susan Carter; Sue Carnevale; Steve Aceti; Sherry Theresa; Sherilyn Sarb; Shelby Tucker; Scott Grimes; Ron Remple; Robert Smith; Rob Rundle; Richard Chavez; pepac@palatribe.com; Pat Atchinson; Niall Fritz; Native American Environmental Coalition; Muggs Stoll; Mike Kelly; Michael White; Michael Mulligan; Megan Johnson; Matt Rahn; Mary Niez; Mary Ellen Mueller; Marney Cox; Markus Spiegelberg; Mark Tucker; Mark Carpenter; Maeve Hanley; Lenore Volturmo; Larry Eng; Kim Kilkenny; Kevin Hunting; Kelly Hendrickson; Keith Pezzoli; Keith Greer; Karen Scarborough; Jonathan Hardy; John Snyder; John Kirk; John Conley; Jim Whalen; Jim Sandoval; Jerry Hittleman; Jerry Backoff; Jerre Stallcup; Jeff Opdycke; Jane Clough Riquelme; Jack Boda; Greg Thompson; Gail Presley; Eric Loft; Elizabeth Goldman; Ed Almanza; Doug Williford; Doug Stow; Don Rideout; Don Neu; Diane Conklin; Debra Jayne; Deborah Lee; David Younkman; Dave DeCordova; Dahvia Lynch; Craig Scott; Courtney Coyle; Clark Winchell; Clare Billett; Brenda Johnson; Bob Stewart; Bob Leiter; Bill Toone; Bill Tippets; Bill James; Anne Fege; Andrew Malk; Alex Tynberg

**Subject:** August 14 EMP Working Group Meeting- Item 4

A few thoughts related to Item # 4- Habitat Conservation

- coordination between NCCP implementation and regional funding source

It has been over 14 years since SD County starting working on NCCP's- and there is still a long way to go. Now we see SANDAG moving forward with plans to address the long identified regional funding gap- but where is the effort on actually completing all of the plans that this is intended to support? The plans need to be completed as well- and there needs to be a more focussed effort to make that happen. SANDAG staff say it is not on their workplan to do any more than "facilitate" NCCP plan implementation. It should be on their workplan to require approved plans/IA's before any jurisdiction gets included in a funding source for management funds.

- timing is of great concern

It is clear there is no commitment to have these funds in place by 2008- the year identified in the Transnet ballot measure. All of the supporters of Transnet- and the millions of residents of SD County who voted for it were told this would happen in four years. Development has proceeded, interim takes have reached the maximum allowed, natural lands are further degraded- yet the management funding is delayed. There must be real incentives and penalties to make something happen. How will the voters trust you on the next ballot measure if key provisions of the last one can be so easily ignored?

- funding options

SANDAG staff has recommended that up to \$ 400m of the Transnet EMP funds will be used toward the regional funding gap. That means \$ 400m less for what many of us thought was the only real benefit of the EMP funds- more natural land acquisition. The use of these funds toward the regional funding gap should really be a last resort choice - not the first one. The MHCP was built on the premise that all stakeholders would contribute, and all would benefit. At this time it seems like the cities are completely backing off from their commitments- and one taxpayer approved ballot measure is being used to reduce the next. Explore other funding options- and get real on the level of management required to protect species before giving up \$ 400 m that can be used for acquisition.

Diane Nygaard  
Sierra Club MHCP Task Force

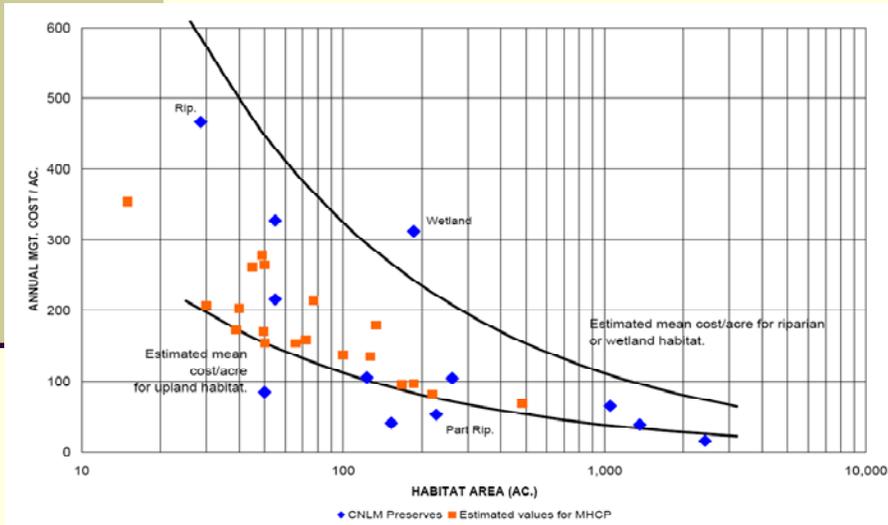
## Regional Habitat Conservation Programs (MHCP and MSCP) and Estimating Public Costs of Habitat Management

- **How much habitat will be managed using public funds?**  
*Public lands + New acquisition + Portion of private lands – Lands managed with funds from other sources*
- **What is the source of information for estimating the cost of habitat management?**  
*Agency data for existing public open space; data from comparable habitat management programs*
- **What is the relationship between annual cost of management and endowment?**  
*Interest income less addition to endowment to retain purchasing power – assumed net income of 3% per year*

## Estimated Habitat Management Costs Cited in Implementation Cost Summary of Regional Habitat Conservation Programs

|  | MHCP    | MSCP<br>South | MSCP<br>North | MSCP<br>East | Total    |
|--|---------|---------------|---------------|--------------|----------|
| Target Conservation of Natural Habitat                         | 19,928  | 168,831       | 118,860       | 54,000       | 361,619  |
| Est. Acres of Publicly Managed Habitat                         | 13,446  | 105,268       | 83,202        | 37,800       | 239,716  |
| Est. Annual Cost of Management and Monitoring (\$ Million)     | \$2.0 M | \$8.9 M       | \$5.8 M       | \$2.6 M      | \$19.3 M |
| Average Annual Cost Per Acre                                   | \$146   | \$84          | \$70          | \$70         | \$80     |
| Est. Endowment to Fund Annual Costs in Perpetuity (\$ Million) | \$91 M  | \$410 M       | \$257 M       | \$117 M      | \$873 M  |

## Average Annual Cost of Habitat Management Based on Habitat Size and Presence of Wetland or Riparian Habitat



## Sample of Habitat Preserves in San Diego County Managed by Center for Natural Lands Management

| Preserve | Principal Habitat Type | Area (Ac.) | Annual Management Cost (2002\$) [1] | Average Annual Cost / Ac. |
|----------|------------------------|------------|-------------------------------------|---------------------------|
| 1        | Riparian               | 28.5       | 13,285                              | 466.13                    |
| 2        | CSS                    | 50.0       | 4,226                               | 84.52                     |
| 3        | CSS                    | 55.0       | 17,985                              | 327.00                    |
| 4        | CSS                    | 55.0       | 11,825                              | 215.00                    |
| 5        | CSS, SMC               | 123.0      | 12,915                              | 105.00                    |
| 6        | CSS                    | 153.0      | 6,217                               | 40.63                     |
| 7        | Wetland                | 186.0      | 57,982                              | 311.73                    |
| 8        | CSS, Riparian          | 227.0      | 11,951                              | 52.65                     |
| 9        | CSS                    | 261.1      | 27,081                              | 103.74                    |
| 10       | CSS                    | 1,050.0    | 68,250                              | 65.00                     |
| 11       | CSS                    | 1,362.0    | 52,027                              | 38.20                     |
| 12       | CSS                    | 2,421.8    | 38,221                              | 15.78                     |

CSS Coastal sage scrub  
SMC Southern maritime chaparral

1. Annual management costs are reported in 2002 dollars for preserves 3 through 6 and 10; costs for others as reported for 1999 have been adjusted to 2002 prices.

## CARLSBAD HMP COST ESTIMATE SUMMARY

|   |  |
|---|--|
| <b>Preparation of HMP</b><br>Sub area plan for MHCP.  | <b>\$750,000 (one time)</b>                                |
| <b>Preparation of OSMP</b><br>Framework plan for<br>implementation of HMP<br>(required by Agencies).  | <b>\$95,900 (one time)</b>                                 |
| <b>Administration of fee and<br/>core area reimbursement</b><br>Additional acquisition within<br>Core Area required for HMP<br>approval.        | <b>\$75,000 (one time)</b>                                 |
| <b>Preserve Management</b><br>Management and monitoring<br>for 600 acres of City-owned<br>preserve.   | <b>\$360,000 (start-up)</b><br><b>\$154,000 (annually)</b> |
| <b>Preserve Steward</b><br>Oversees preserve<br>management, provides<br>technical assistance (required<br>by Agencies – may have<br>MHCP role). | <b>\$125,000 (annually)</b>                                |
| <b>Annual Report/Meeting</b><br>Public reporting, outreach,<br>and annual meeting required<br>by IA, OSMP. (May be MHCP-<br>wide in future).    | <b>\$30,000 (07/08 budget)</b>                             |
| <b>Staff Processing/Admin</b>   | <b>Unknown at this time</b>                                |

**Appendix 1.**

**PAR for Carlsbad OSMP Preserve Management**

**Section 8 = Initial and Capital Funds Required**

**Section 9 = Ongoing Funds Required**

**Section 10 = Cost Summary**

## Section 8 - Initial & Capital Tasks and Costs

Property Title: Carlsbad Funding Analysis

Dataset: CA004

PAR ID: RO61FIN

04/29/2004

Budget: PAR

| Task list                       | Specificaton         | Unit     | Number of Units | Cost / Unit | Annual Cost | Times Years | Total Cost |
|---------------------------------|----------------------|----------|-----------------|-------------|-------------|-------------|------------|
| <b>SITE CONSTRUCTION/MAINT.</b> |                      |          |                 |             |             |             |            |
| Fence, 4' X 6' X 6'             | Post & 3/4" Cable    | Lin. Ft. | 24,288.00       | 12.00       | 291,456.00  | 1.0         | 291,456.00 |
| Fence - Installed               | Chain Link 6'        | Lin. Ft. | 12,144.00       | 9.85        | 119,618.40  | 1.0         | 119,618.40 |
| Fence - Installed               | Barbed-wire, 4 strd. | Lin. Ft. | 72,864.00       | 2.45        | 178,516.80  | 1.0         | 178,516.80 |
| Gate                            | 16" arm swing        | Item     | 50.00           | 2,500.00    | 125,000.00  | 1.0         | 125,000.00 |
| Vehicle Barrier                 | Concrete Bollard     | Lin. Ft. | 12,144.00       | 8.00        | 97,152.00   | 1.0         | 97,152.00  |
| Sub-Total                       |                      |          |                 |             |             |             | 811,743.20 |

### BIOTIC SURVEYS

|                    |                                |          |          |           |            |     |            |
|--------------------|--------------------------------|----------|----------|-----------|------------|-----|------------|
| Project Management | Supervise/coordinate           | L. Hours | 300.00   | 44.51     | 13,353.00  | 1.0 | 13,353.00  |
| Plant Ecologist    | Vegetation Mapping             | L. Hours | 357.00   | 44.51     | 15,890.07  | 1.0 | 15,890.07  |
| Plant Ecologist    | Vernal Pool Measure variables  | L. Hours | 144.00   | 44.51     | 6,409.44   | 1.0 | 6,409.44   |
| Plant Ecologist    | Sensitive Plant Species Survey | L. Hours | 345.00   | 44.51     | 15,355.95  | 1.0 | 15,355.95  |
| Plant Ecologist    | Monit. Enc Bacc & DM           | L. Hours | 40.00    | 44.51     | 1,780.40   | 1.0 | 1,780.40   |
| Plant Ecologist    | Spec:management &              | L. Hours | 300.00   | 44.51     | 13,353.00  | 1.0 | 13,353.00  |
| Entomologist       | Fairy Shrimp surveys           | L. Hours | 75.00    | 44.51     | 3,338.25   | 1.0 | 3,338.25   |
| Entomologist       | Skipper surveys                | L. Hours | 140.00   | 44.51     | 6,231.40   | 1.0 | 6,231.40   |
| Entomologist       | Ant surveys                    | L. Hours | 200.00   | 44.51     | 8,902.00   | 1.0 | 8,902.00   |
| Herpetologist      | Vernal Pool/Spadefoot monitor  | L. Hours | 60.00    | 44.51     | 2,670.60   | 1.0 | 2,670.60   |
| Herpetologist      | Pit-array monitoring           | L. Hours | 480.00   | 44.51     | 21,364.80  | 1.0 | 21,364.80  |
| Herpetologist      | Pit-array installation/maint   | L. Hours | 120.00   | 32.08     | 3,849.60   | 1.0 | 3,849.60   |
| Mammalogist        | Wildlife Corridors             | L. Hours | 640.00   | 44.51     | 28,486.40  | 1.0 | 28,486.40  |
| Ornithologist      | CSS, Chap, and grassland       | L. Hours | 1,328.00 | 44.51     | 59,109.28  | 1.0 | 59,109.28  |
| Ornithologist      | Riparian                       | L. Hours | 240.00   | 44.51     | 10,682.40  | 1.0 | 10,682.40  |
| Ornithologist      | LBV,WIFL nest monitoring       | L. Hours | 192.00   | 44.51     | 8,545.92   | 1.0 | 8,545.92   |
| Ornithologist      | Lagoons                        | L. Hours | 1,168.00 | 44.51     | 51,987.68  | 1.0 | 51,987.68  |
| Ornithologist      | CAGN dispersal studies         | L. Hours | 2,400.00 | 44.51     | 106,824.00 | 1.0 | 106,824.00 |
| Science Director   | Planning and Review            | L. Hours | 500.00   | 50.73     | 25,365.00  | 1.0 | 25,365.00  |
| Monitor Climate    | Analyze data                   | L. Hours | 50.00    | 44.51     | 2,225.50   | 1.0 | 2,225.50   |
| Other              | Adaptive management            | Item     | 1.00     | 30,000.00 | 30,000.00  | 1.0 | 30,000.00  |
| Sub-Total          |                                |          |          |           |            |     | 435,724.69 |

### HABITAT MAINTENANCE

|                       |                               |           |          |            |            |     |            |
|-----------------------|-------------------------------|-----------|----------|------------|------------|-----|------------|
| Erosion Control       | Labor                         | L. Hours  | 1,780.00 | 22.76      | 40,512.80  | 1.0 | 40,512.80  |
| Seed Collection       | Seed Banking                  | Accession | 4.00     | 2,500.00   | 10,000.00  | 1.0 | 10,000.00  |
| Plant Procurement     | Plant nursery prop. \$4/plant | Item      | 1,000.00 | 4.00       | 4,000.00   | 1.0 | 4,000.00   |
| Exotic Plant Control  | Supervision by botanist       | L. Hours  | 300.00   | 44.51      | 13,353.00  | 1.0 | 13,353.00  |
| Exotic Plant Control  | Up-front control              | Item      | 1.00     | 500,000.00 | 500,000.00 | 1.0 | 500,000.00 |
| Exotic Animal Control | Supervise cowbird removal     | L. Hours  | 40.00    | 44.51      | 1,780.40   | 1.0 | 1,780.40   |
| Exotic Animal Control | Cowbird trap checks-labor     | L. Hours  | 1,120.00 | 32.08      | 35,929.60  | 1.0 | 35,929.60  |
| Exotic Animal Control | Cowbird Traps                 | Item      | 10.00    | 500.00     | 5,000.00   | 1.0 | 5,000.00   |
| Sub-Total             |                               |           |          |            |            |     | 610,575.80 |

| Task list                  | Specificaton                | Unit     | Number of Units | Cost / Unit | Annual Cost | Times Years | Total Cost |
|----------------------------|-----------------------------|----------|-----------------|-------------|-------------|-------------|------------|
| <b>PUBLIC SERVICES</b>     |                             |          |                 |             |             |             |            |
| Patrolling                 | Supervising officer         | L. Hours | 1,780.00        | 35.19       | 62,638.20   | 1.0         | 62,638.20  |
| Patrolling                 | 4 rangers/ officers         | L. Hours | 7,120.00        | 32.08       | 228,409.60  | 1.0         | 228,409.60 |
| Trail                      | Maintenance                 | Mile     | 68.00           | 4,000.00    | 272,000.00  | 1.0         | 272,000.00 |
| Sign                       | Misc                        | Item     | 1,000.00        | 3.25        | 3,250.00    | 1.0         | 3,250.00   |
| Sign                       | Boundary 8" X 13.5"         | Item     | 4,065.00        | 5.25        | 21,341.25   | 1.0         | 21,341.25  |
| Sign                       | Sign posts u-channel        | Item     | 1,000.00        | 11.00       | 11,000.00   | 1.0         | 11,000.00  |
| Sign, Redwood              | Interpretive 4'X 6'         | Item     | 50.00           | 1,000.00    | 50,000.00   | 1.0         | 50,000.00  |
| Community Outreach         | Public outreach coordinator | L. Hours | 1,780.00        | 32.08       | 57,102.40   | 1.0         | 57,102.40  |
| Sub-Total                  |                             |          |                 |             |             |             | 705,741.45 |
| <b>GENERAL MAINTENANCE</b> |                             |          |                 |             |             |             |            |
| Hauling, Truck             | Truckload of trash          | Item     | 100.00          | 40.00       | 4,000.00    | 1.0         | 4,000.00   |
| Sub-Total                  |                             |          |                 |             |             |             | 4,000.00   |
| <b>REPORTING</b>           |                             |          |                 |             |             |             |            |
| Database Management        | Data analysis and reporting | L. Hours | 1,538.00        | 44.51       | 68,456.38   | 1.0         | 68,456.38  |
| GIS/CAD Management         | Data Management             | L. Hours | 890.00          | 44.51       | 39,613.90   | 1.0         | 39,613.90  |
| Annual Reports             | Reporting coordination      | L. Hours | 250.00          | 44.51       | 11,127.50   | 1.0         | 11,127.50  |
| Management Plan            | Initial Report              | L. Hours | 200.00          | 44.51       | 8,902.00    | 1.0         | 8,902.00   |
| Sub-Total                  |                             |          |                 |             |             |             | 128,099.78 |
| <b>OFFICE MAINTENANCE</b>  |                             |          |                 |             |             |             |            |
| Administrative             | Operations                  | L. Hours | 500.00          | 44.51       | 22,255.00   | 1.0         | 22,255.00  |
| Preserve Office            | Office rent                 | Sq. Ft.  | 2,000.00        | 1.70        | 3,400.00    | 1.0         | 3,400.00   |
| Utilities, Annual          | Elec., Gas, Water           | Sq. Ft.  | 2,000.00        | 1.00        | 2,000.00    | 1.0         | 2,000.00   |
| Telephone Charges, Annual  | Cell Phone Charges 8 phones | Year     | 12.00           | 720.00      | 8,640.00    | 1.0         | 8,640.00   |
| Office Supplies, Year      | Supplies                    | Person   | 10.00           | 250.00      | 2,500.00    | 1.0         | 2,500.00   |
| Furniture                  | Desk                        | Item     | 10.00           | 250.00      | 2,500.00    | 1.0         | 2,500.00   |
| Furniture                  | Chair                       | Item     | 10.00           | 150.00      | 1,500.00    | 1.0         | 1,500.00   |
| Furniture                  | Bookcase, 3'x5'             | Item     | 2.00            | 150.00      | 300.00      | 1.0         | 300.00     |
| Furniture                  | File cabinet                | Item     | 5.00            | 400.00      | 2,000.00    | 1.0         | 2,000.00   |
| Copier                     | Copier, 15-18 ppm           | Item     | 1.00            | 2,500.00    | 2,500.00    | 1.0         | 2,500.00   |
| Fax Machine                | Standard                    | Item     | 1.00            | 250.00      | 250.00      | 1.0         | 250.00     |
| Telephone                  | Touch-tone                  | Item     | 10.00           | 55.00       | 550.00      | 1.0         | 550.00     |
| E-Mail                     | Services                    | Year     | 1.00            | 500.00      | 500.00      | 1.0         | 500.00     |
| Computer, PC & Monitor     | Computers                   | Item     | 10.00           | 2,100.00    | 21,000.00   | 1.0         | 21,000.00  |
| Computer software          | Microsoft Office Pkg        | Item     | 8.00            | 450.00      | 3,600.00    | 1.0         | 3,600.00   |
| Computer software          | ArcGIS                      | Item     | 1.00            | 1,500.00    | 1,500.00    | 1.0         | 1,500.00   |
| Laser Printer              | 600 DPI                     | Item     | 2.00            | 840.00      | 1,680.00    | 1.0         | 1,680.00   |
| Deskjet Printer            | Color printer               | Item     | 3.00            | 499.00      | 1,497.00    | 1.0         | 1,497.00   |
| Sub-Total                  |                             |          |                 |             |             |             | 78,172.00  |

| Task list                               | Specificaton                   | Unit    | Number of Units | Cost / Unit | Annual Cost | Times Years | Total Cost   |
|---|--------------------------------|---------|-----------------|-------------|-------------|-------------|--------------|
| <b>FIELD EQUIPMENT</b>                  |                                |         |                 |             |             |             |              |
| Vehicle                                 | Toyota extra-cab 4X4           | Item    | 9.00            | 24,000.00   | 216,000.00  | 1.0         | 216,000.00   |
| Vehicle                                 | Fuel (444 gallons/vehicle/year | Gallons | 3,996.00        | 2.00        | 7,992.00    | 1.0         | 7,992.00     |
| Vehicle                                 | Maintenance                    | Year    | 1.00            | 5,000.00    | 5,000.00    | 1.0         | 5,000.00     |
| Vehicle Insurance                       | Insurance (9 x \$1,632/yr))    | Year    | 1.00            | 14,688.80   | 14,688.80   | 1.0         | 14,688.80    |
| Other                                   | all supplies 1st yr, see text  | Item    | 1.00            | 34,495.70   | 34,495.70   | 1.0         | 34,495.70    |
| Sub-Total                               |                                |         |                 |             |             |             | 278,176.50   |
| <b>OPERATIONS</b>                       |                                |         |                 |             |             |             |              |
| Audit                                   | CPA Audit                      | Acre    | 7,135.00        | 0.55        | 3,924.25    | 1.0         | 3,924.25     |
| Insurance                               | Liability/Fee                  | Acres   | 7,135.00        | 0.37        | 2,639.95    | 1.0         | 2,639.95     |
| Sub-Total                               |                                |         |                 |             |             |             | 6,564.20     |
| <b>CONTINGENCY &amp; ADMINISTRATION</b> |                                |         |                 |             |             |             |              |
| Contingency                             |                                |         |                 |             |             |             | 305,679.76   |
| Administration                          |                                |         |                 |             |             |             | 807,522.57   |
| Sub-Total                               |                                |         |                 |             |             |             | 1,113,402.33 |
| Total                                   |                                |         |                 |             |             |             | 4,172,199.95 |

## Section 10 - Financial Summary

Property Title: Carlsbad Funding Analysis

Dataset: CA004

PAR ID: RO61FIN

04/29/2004

| PAR(70 ac.)  | Rate<br>% | Total<br>\$       |
|--|-----------|-------------------|
| <b>INITIAL FINANCIAL REQUIREMENTS</b>  |           |                   |
| I & C Revenue  |           | 0                 |
| I & C Management Costs   |           | 3,058,797         |
| I & C Contingency Expense  | 10.00     | 305,880           |
| Total I & C Management Costs   |           | 3,364,677         |
| I & C Administrative Costs of Total I & C Management Costs                               | 24.00     | 807,523           |
| Total I & C Costs  |           | 4,172,200         |
| Net I & C Management and Administrative Costs  |           | 4,172,200         |
| <b>ANNUAL ONGOING FINANCIAL REQUIREMENTS</b>   |           |                   |
| Ongoing Costs  |           | 1,380,057         |
| Ongoing Contingency Expense  | 10.00     | 138,006           |
| Total Ongoing Management Costs   |           | 1,518,063         |
| Ongoing Administrative Costs of Total Ongoing Management costs                           | 24.00     | 364,335           |
| Total Ongoing Costs  |           | 1,882,398         |
| <b>ENDOWMENT REQUIREMENTS FOR ONGOING STEWARDSHIP</b>                                    |           |                   |
| Endowment to Provide Income of \$1,882,398   |           | 41,831,067        |
| Endowment per Acre is \$ 5,862.  |           |                   |
| Ongoing Management Costs Based on 4.50% of Endowment per Year.                           |           |                   |
| Ongoing Management Funding is \$1,882,398 per Year Resulting in \$263 per Acre per Year. |           |                   |
| <b>TOTAL CONTRIBUTION</b>  |           | <b>46,003,267</b> |

| Task list                               | Specificaton                    | Unit    | Number of Units | Cost / Unit | Annual Cost | Divide Years | Total Cost   |
|---|---------------------------------|---------|-----------------|-------------|-------------|--------------|--------------|
| Computer, PC & Monitor                  | Computers                       | Item    | 10.00           | 2,100.00    | 21,000.00   | 4            | 5,250.00     |
| Computer software                       | Microsoft Office Pkg            | Item    | 8.00            | 450.00      | 3,600.00    | 4            | 900.00       |
| Computer software                       | ArcGIS                          | Item    | 1.00            | 1,500.00    | 1,500.00    | 5            | 300.00       |
| Laser Printer                           | 600 DPI                         | Item    | 2.00            | 840.00      | 1,680.00    | 4            | 420.00       |
| Deskjet Printer                         | Color printer                   | Item    | 3.00            | 499.00      | 1,497.00    | 6            | 249.50       |
| Sub-Total                               |                                 |         |                 |             |             |              | 47,674.50    |
| <b>FIELD EQUIPMENT</b>                  |                                 |         |                 |             |             |              |              |
| Vehicle                                 | Toyota extra-cab 4X4            | Item    | 9.00            | 24,000.00   | 216,000.00  | 8            | 27,000.00    |
| Vehicle                                 | Fuel (444 gallons/vehicle/year) | Gallons | 3,996.00        | 2.00        | 7,992.00    | 1            | 7,992.00     |
| Vehicle                                 | Maintenance                     | Year    | 1.00            | 5,000.00    | 5,000.00    | 1            | 5,000.00     |
| Vehicle Insurance                       | Insurance (9 x \$1,632/yr))     | Year    | 1.00            | 14,688.80   | 14,688.80   | 1            | 14,688.80    |
| Other                                   | all supplies, see text          | Item    | 1.00            | 13,870.59   | 13,870.59   | 1            | 13,870.59    |
| Sub-Total                               |                                 |         |                 |             |             |              | 68,551.39    |
| <b>OPERATIONS</b>                       |                                 |         |                 |             |             |              |              |
| Audit                                   | CPA Audit                       | Acre    | 7,135.00        | 0.55        | 3,924.25    | 1            | 3,924.25     |
| Insurance                               | Liability/Fee                   | Acres   | 7,135.00        | 0.37        | 2,639.95    | 1            | 2,639.95     |
| Sub-Total                               |                                 |         |                 |             |             |              | 6,564.20     |
| <b>CONTINGENCY &amp; ADMINISTRATION</b> |                                 |         |                 |             |             |              |              |
| Contingency                             |                                 |         |                 |             |             |              | 138,005.72   |
| Administration                          |                                 |         |                 |             |             |              | 364,335.10   |
| Sub-Total                               |                                 |         |                 |             |             |              | 502,340.82   |
| Total                                   |                                 |         |                 |             |             |              | 1,882,398.00 |

| Task list                  | Specifacaton                  | Unit      | Number of Units | Cost / Unit | Annual Cost | Divide Years | Total Cost |
|----------------------------|-------------------------------|-----------|-----------------|-------------|-------------|--------------|------------|
| <b>HABITAT MAINTENANCE</b> |                               |           |                 |             |             |              |            |
| Erosion Control            | Labor                         | L. Hours  | 1,780.00        | 22.76       | 40,512.80   | 1            | 40,512.80  |
| Seed Collection            | Seed Banking                  | Accession | 4.00            | 2,500.00    | 10,000.00   | 15           | 666.67     |
| Plant Procurement          | Plant nursery prop. \$4/plant | Item      | 1,900.00        | 4.00        | 4,000.00    | 1            | 4,000.00   |
| Exotic Plant Control       | Supervision by botanlist      | L. Hours  | 300.00          | 44.51       | 13,353.00   | 1            | 13,353.00  |
| Exotic Plant Control       | Laborers (5)                  | L. Hours  | 8,900.00        | 22.76       | 202,564.00  | 1            | 202,564.00 |
| Exotic Animal Control      | Supervise cowbird removal     | L. Hours  | 40.00           | 44.51       | 1,780.40    | 1            | 1,780.40   |
| Exotic Animal Control      | Cowbird trap checks-labor     | L. Hours  | 1,120.00        | 32.08       | 35,929.60   | 1            | 35,929.60  |
| Exotic Animal Control      | Cowbird Traps                 | Item      | 10.00           | 500.00      | 5,000.00    | 5            | 1,000.00   |
| Sub-Total                  |                               |           |                 |             |             |              | 299,806.47 |
| <b>PUBLIC SERVICES</b>     |                               |           |                 |             |             |              |            |
| Patrolling                 | Supervising officer           | L. Hours  | 1,780.00        | 35.19       | 62,638.20   | 1            | 62,638.20  |
| Patrolling                 | 4 rangers/ officers           | L. Hours  | 7,120.00        | 32.08       | 228,409.60  | 1            | 228,409.60 |
| Trail                      | Maintenance                   | Mile      | 68.00           | 4,000.00    | 272,000.00  | 5            | 54,400.00  |
| Sign                       | Misc                          | Item      | 1,000.00        | 3.25        | 3,250.00    | 7            | 464.29     |
| Sign                       | Boundary 8" X 13.5"           | Item      | 4,065.00        | 5.25        | 21,341.25   | 10           | 2,134.13   |
| Sign                       | Sign posts u-channel          | Item      | 1,000.00        | 11.00       | 11,000.00   | 10           | 1,100.00   |
| Sign, Redwood              | Interpretive 4'X 6'           | Item      | 50.00           | 1,000.00    | 50,000.00   | 15           | 3,333.33   |
| Community Outreach         | Public outreach coordinator   | L. Hours  | 1,780.00        | 32.08       | 57,102.40   | 1            | 57,102.40  |
| Sub-Total                  |                               |           |                 |             |             |              | 409,581.95 |
| <b>GENERAL MAINTENANCE</b> |                               |           |                 |             |             |              |            |
| Hauling, Truck             | Truckload of trash            | Item      | 100.00          | 40.00       | 4,000.00    | 1            | 4,000.00   |
| Sub-Total                  |                               |           |                 |             |             |              | 4,000.00   |
| <b>REPORTING</b>           |                               |           |                 |             |             |              |            |
| Database Management        | Data analysis and reporting   | L. Hours  | 1,538.00        | 44.51       | 68,456.38   | 1            | 68,456.38  |
| GIS/CAD Management         | Data Management               | L. Hours  | 890.00          | 44.51       | 39,613.90   | 1            | 39,613.90  |
| Annual Reports             | Reporting coordination        | L. Hours  | 250.00          | 44.51       | 11,127.50   | 1            | 11,127.50  |
| Management Plan            | Initial Report                | L. Hours  | 200.00          | 44.51       | 8,902.00    | 3            | 2,967.33   |
| Sub-Total                  |                               |           |                 |             |             |              | 122,165.11 |
| <b>OFFICE MAINTENANCE</b>  |                               |           |                 |             |             |              |            |
| Administrative             | Operations                    | L. Hours  | 500.00          | 44.51       | 22,255.00   | 1            | 22,255.00  |
| Preserve Office            | Office rent                   | Sq. Ft.   | 2,000.00        | 1.70        | 3,400.00    | 1            | 3,400.00   |
| Utilities, Annual          | Etec., Gas, Water             | Sq. Ft.   | 2,000.00        | 1.00        | 2,000.00    | 1            | 2,000.00   |
| Telephone Charges, Annual  | Cell Phone Charges 8 phones   | Year      | 12.00           | 720.00      | 8,640.00    | 1            | 8,640.00   |
| Office Supplies, Year      | Supplies                      | Person    | 10.00           | 250.00      | 2,500.00    | 1            | 2,500.00   |
| Furniture                  | Desk                          | Item      | 10.00           | 250.00      | 2,500.00    | 10           | 250.00     |
| Furniture                  | Chair                         | Item      | 10.00           | 150.00      | 1,500.00    | 5            | 300.00     |
| Furniture                  | Bookcase, 3'x5'               | Item      | 2.00            | 150.00      | 300.00      | 8            | 37.50      |
| Furniture                  | File cabinet                  | Item      | 5.00            | 400.00      | 2,000.00    | 10           | 200.00     |
| Copier                     | Copier, 15-18 ppm             | Item      | 1.00            | 2,500.00    | 2,500.00    | 8            | 312.50     |
| Fax Machine                | Standard                      | Item      | 1.00            | 250.00      | 250.00      | 5            | 50.00      |
| Telephone                  | Touch-tone                    | Item      | 10.00           | 55.00       | 550.00      | 5            | 110.00     |
| E-Mail                     | Services                      | Year      | 1.00            | 500.00      | 500.00      | 1            | 500.00     |

## Section 9 - Ongoing Tasks and Costs

Property Title: Carlsbad Funding Analysis

Dataset: CA004

PAR ID: RO61FIN

04/29/2004

Budget: PAR

| Task list                       | Specificaton                   | Unit     | Number of Units | Cost / Unit | Annual Cost | Divide Years | Total Cost |
|---------------------------------|--------------------------------|----------|-----------------|-------------|-------------|--------------|------------|
| <b>SITE CONSTRUCTION/MAINT.</b> |                                |          |                 |             |             |              |            |
| Fence, 4' X 6' X 6'             | Post & 3/4" Cable              | Lin. Ft. | 24,288.00       | 12.00       | 291,456.00  | 25           | 11,658.24  |
| Fence, 4' X 6' X 6'             | Post & 3/4" Cable Maintenance  | Lin. Ft. | 2,428.80        | 12.00       | 29,145.60   | 1            | 29,145.60  |
| Fence - Installed               | Chain Link 6'                  | Lin. Ft. | 12,144.00       | 9.85        | 119,618.40  | 25           | 4,784.74   |
| Fence - Installed               | Chain Link 6' Maintenance      | Lin. Ft. | 1,214.40        | 9.85        | 11,961.84   | 1            | 11,961.84  |
| Fence - Installed               | Barbed-wire, 4 strd.           | Lin. Ft. | 72,864.00       | 2.45        | 178,516.80  | 25           | 7,140.67   |
| Fence - Installed               | Barbed-wire, 4 strd.Maintain   | Lin. Ft. | 7,286.40        | 2.45        | 17,851.68   | 1            | 17,851.68  |
| Gate                            | 16" arm swing                  | Item     | 50.00           | 2,500.00    | 125,000.00  | 20           | 6,250.00   |
| Vehicle Barrier                 | Concrete Bollard               | Lin. Ft  | 12,144.00       | 8.00        | 97,152.00   | 25           | 3,886.08   |
| Vehicle Barrier                 | Concrete Bollard maintain      | Lin. Ft  | 1,214.40        | 8.00        | 9,715.20    | 1            | 9,715.20   |
| Sub-Total                       |                                |          |                 |             |             |              | 102,394.05 |
| <b>BIOTIC SURVEYS</b>           |                                |          |                 |             |             |              |            |
| Project Management              | Supervise/coordinate           | L. Hours | 300.00          | 44.51       | 13,353.00   | 1            | 13,353.00  |
| Plant Ecologist                 | Vegetation Mapping             | L. Hours | 357.00          | 44.51       | 15,890.07   | 5            | 3,178.01   |
| Plant Ecologist                 | Vernal Pool Measure variables  | L. Hours | 144.00          | 44.51       | 6,409.44    | 1            | 6,409.44   |
| Plant Ecologist                 | Sensitive Plant Species Survey | L. Hours | 345.00          | 44.51       | 15,355.95   | 1            | 15,355.95  |
| Plant Ecologist                 | Monit. Enc Bacc & DM           | L. Hours | 40.00           | 44.51       | 1,780.40    | 5            | 356.08     |
| Plant Ecologist                 | Spec:management &              | L. Hours | 300.00          | 44.51       | 13,353.00   | 1            | 13,353.00  |
| Entomologist                    | Fairy Shrimp surveys           | L. Hours | 75.00           | 44.51       | 3,338.25    | 1            | 3,338.25   |
| Entomologist                    | Skipper surveys                | L. Hours | 140.00          | 44.51       | 6,231.40    | 1            | 6,231.40   |
| Entomologist                    | Ant surveys                    | L. Hours | 200.00          | 44.51       | 8,902.00    | 1            | 8,902.00   |
| Herpetologist                   | Vernal Pool/Spadefoot monitor  | L. Hours | 60.00           | 44.51       | 2,670.60    | 1            | 2,670.60   |
| Herpetologist                   | Pit-array monitoring           | L. Hours | 480.00          | 44.51       | 21,364.80   | 2            | 10,682.40  |
| Herpetologist                   | Pit-array installation/maint   | L. Hours | 120.00          | 32.08       | 3,849.60    | 3            | 1,283.20   |
| Mammalogist                     | Wildlife Corridors             | L. Hours | 640.00          | 44.51       | 28,486.40   | 1            | 28,486.40  |
| Ornithologist                   | CSS, Chap, and grassland       | L. Hours | 1,328.00        | 44.51       | 59,109.28   | 1            | 59,109.28  |
| Ornithologist                   | Riparian                       | L. Hours | 240.00          | 44.51       | 10,682.40   | 1            | 10,682.40  |
| Ornithologist                   | LBV,WIFL nest monitoring       | L. Hours | 192.00          | 44.51       | 8,545.92    | 1            | 8,545.92   |
| Ornithologist                   | Lagoons                        | L. Hours | 1,168.00        | 44.51       | 51,987.68   | 1            | 51,987.68  |
| Ornithologist                   | CAGN dispersal studies         | L. Hours | 2,400.00        | 44.51       | 106,824.00  | 6            | 17,804.00  |
| Science Director                | Planning and Review            | L. Hours | 500.00          | 50.73       | 25,365.00   | 1            | 25,365.00  |
| Monitor Climate                 | Analyze data                   | L. Hours | 50.00           | 44.51       | 2,225.50    | 1            | 2,225.50   |
| Other                           | Adaptive management            | Item     | 1.00            | 30,000.00   | 30,000.00   | 1            | 30,000.00  |
| Sub-Total                       |                                |          |                 |             |             |              | 319,319.51 |

**Appendix 3.**

**PAR for City of Carlsbad Properties**

**Section 8 = Initial and Capital Funds Required**

**Section 9 = Ongoing Funds Required**

**Section 10 = Cost Summary**

## Section 8 - Initial & Capital Tasks and Costs

Property Title: Carlsbad Funding Analysis

Dataset: CA004

PAR ID: RO61FIN

04/29/2004

Budget: Phase Budget 002 City of Carlsbad

| Task list                       | Specificaton         | Unit     | Number of Units | Cost / Unit | Annual Cost | Times Years | Total Cost |
|---------------------------------|----------------------|----------|-----------------|-------------|-------------|-------------|------------|
| <b>SITE CONSTRUCTION/MAINT.</b> |                      |          |                 |             |             |             |            |
| Fence, 4' X 6' X 6'             | Post & 3/4" Cable    | Lin. Ft. | 2,185.92        | 12.00       | 26,231.04   | 1.0         | 26,231.04  |
| Fence - Installed               | Chain Link 6'        | Lin. Ft. | 1,092.96        | 9.85        | 10,765.66   | 1.0         | 10,765.66  |
| Fence - Installed               | Barbed-wire, 4 strd. | Lin. Ft. | 6,557.76        | 2.45        | 16,066.51   | 1.0         | 16,066.51  |
| Gate                            | 16" arm swing        | Item     | 4.50            | 2,500.00    | 11,250.00   | 1.0         | 11,250.00  |
| Vehicle Barrier                 | Concrete Bollard     | Lin. Ft  | 1,092.96        | 8.00        | 8,743.68    | 1.0         | 8,743.68   |
| Sub-Total                       |                      |          |                 |             |             |             | 73,056.89  |

### BIOTIC SURVEYS

|                    |                                |          |        |           |           |     |           |
|--------------------|--------------------------------|----------|--------|-----------|-----------|-----|-----------|
| Project Management | Supervise/coordinate           | L. Hours | 50.00  | 44.51     | 2,225.50  | 1.0 | 2,225.50  |
| Plant Ecologist    | Vegetation Mapping             | L. Hours | 32.13  | 44.51     | 1,430.11  | 1.0 | 1,430.11  |
| Plant Ecologist    | Sensitive Plant Species Survey | L. Hours | 22.40  | 44.51     | 997.14    | 1.0 | 997.14    |
| Plant Ecologist    | Monit. Enc Bacc & DM           | L. Hours | 5.20   | 44.51     | 231.45    | 1.0 | 231.45    |
| Plant Ecologist    | Spec:management &              | L. Hours | 50.00  | 44.51     | 2,225.50  | 1.0 | 2,225.50  |
| Entomologist       | Skipper surveys                | L. Hours | 7.00   | 44.51     | 311.57    | 1.0 | 311.57    |
| Entomologist       | Ant surveys                    | L. Hours | 18.00  | 44.51     | 801.18    | 1.0 | 801.18    |
| Herpetologist      | Pit-array monitoring           | L. Hours | 62.40  | 44.51     | 2,777.42  | 1.0 | 2,777.42  |
| Herpetologist      | Pit-array installation/maint   | L. Hours | 15.60  | 32.08     | 500.45    | 1.0 | 500.45    |
| Mammalogist        | Wildlife Corridors             | L. Hours | 256.00 | 44.51     | 11,394.56 | 1.0 | 11,394.56 |
| Ornithologist      | CSS, Chap, and grassland       | L. Hours | 125.23 | 44.51     | 5,573.90  | 1.0 | 5,573.90  |
| Ornithologist      | Riparian                       | L. Hours | 26.40  | 44.51     | 1,175.06  | 1.0 | 1,175.06  |
| Ornithologist      | LBV,WIFL nest monitoring       | L. Hours | 48.00  | 44.51     | 2,136.48  | 1.0 | 2,136.48  |
| Ornithologist      | CAGN dispersal studies         | L. Hours | 312.00 | 44.51     | 13,887.12 | 1.0 | 13,887.12 |
| Science Director   | Planning and Review            | Hours    | 45.00  | 50.73     | 2,282.85  | 1.0 | 2,282.85  |
| Monitor Climate    | Analyze data                   | L. Hours | 8.33   | 44.51     | 370.92    | 1.0 | 370.92    |
| Other              | Adaptive management            | Item     | 0.09   | 30,000.00 | 2,700.00  | 1.0 | 2,700.00  |
| Sub-Total          |                                |          |        |           |           |     | 51,021.21 |

### HABITAT MAINTENANCE

|                       |                           |           |        |            |           |     |           |
|-----------------------|---------------------------|-----------|--------|------------|-----------|-----|-----------|
| Erosion Control       | Slope Stabilization       | L. Hours  | 160.20 | 22.76      | 3,646.15  | 1.0 | 3,646.15  |
| Seed Collection       | Seed Banking              | Accession | 0.36   | 2,500.00   | 900.00    | 1.0 | 900.00    |
| Plant Procurement     | Rooted cuttings           | Item      | 90.00  | 4.00       | 360.00    | 1.0 | 360.00    |
| Exotic Plant Control  | Supervision by botantist  | L. Hours  | 27.00  | 44.51      | 1,201.77  | 1.0 | 1,201.77  |
| Exotic Plant Control  | Up-front control          | Item      | 0.09   | 500,000.00 | 45,000.00 | 1.0 | 45,000.00 |
| Exotic Animal Control | Supervise cowbird removal | L. Hours  | 3.60   | 44.51      | 160.24    | 1.0 | 160.24    |
| Exotic Animal Control | Cowbird trap checks-labor | L. Hours  | 224.00 | 32.08      | 7,185.92  | 1.0 | 7,185.92  |
| Exotic Animal Control | Cowbird Traps             | Item      | 0.90   | 500.00     | 450.00    | 1.0 | 450.00    |
| Sub-Total             |                           |           |        |            |           |     | 58,904.08 |

| Task list                  | Specificaton                | Unit     | Number of Units | Cost / Unit | Annual Cost | Times Years | Total Cost |
|----------------------------|-----------------------------|----------|-----------------|-------------|-------------|-------------|------------|
| <b>PUBLIC SERVICES</b>     |                             |          |                 |             |             |             |            |
| Patrolling                 | Supervising officer         | L. Hours | 160.20          | 35.19       | 5,637.44    | 1.0         | 5,637.44   |
| Patrolling                 | 4 rangers/ officers         | L. Hours | 640.80          | 32.08       | 20,556.86   | 1.0         | 20,556.86  |
| Trail                      | Maintenance                 | Mile     | 6.12            | 4,000.00    | 24,480.00   | 1.0         | 24,480.00  |
| Sign                       | Misc                        | Item     | 90.00           | 3.25        | 292.50      | 1.0         | 292.50     |
| Sign                       | Boundary 8" X 13.5"         | Item     | 365.85          | 5.25        | 1,920.71    | 1.0         | 1,920.71   |
| Sign                       | Sign posts u-channel        | Item     | 90.00           | 11.00       | 990.00      | 1.0         | 990.00     |
| Sign, Redwood              | Interpretive 4'X 6'         | Item     | 4.50            | 1,000.00    | 4,500.00    | 1.0         | 4,500.00   |
| Community Outreach         | Public outreach coordinator | L. Hours | 160.20          | 32.08       | 5,139.22    | 1.0         | 5,139.22   |
| Sub-Total                  |                             |          |                 |             |             |             | 63,516.73  |
| <b>GENERAL MAINTENANCE</b> |                             |          |                 |             |             |             |            |
| Hauling, Truck             | Truckload of trash          | Item     | 9.00            | 40.00       | 360.00      | 1.0         | 360.00     |
| Sub-Total                  |                             |          |                 |             |             |             | 360.00     |
| <b>REPORTING</b>           |                             |          |                 |             |             |             |            |
| Database Management        | Data analysis and reporting | L. Hours | 138.42          | 44.51       | 6,161.07    | 1.0         | 6,161.07   |
| GIS/CAD Management         | Data Management             | L. Hours | 80.10           | 44.51       | 3,565.25    | 1.0         | 3,565.25   |
| Annual Reports             | Reporting coordination      | L. Hours | 22.50           | 44.51       | 1,001.48    | 1.0         | 1,001.48   |
| Management Plan            | Initial Report              | L. Hours | 18.00           | 44.51       | 801.18      | 1.0         | 801.18     |
| Sub-Total                  |                             |          |                 |             |             |             | 11,528.98  |
| <b>OFFICE MAINTENANCE</b>  |                             |          |                 |             |             |             |            |
| Administrative             | Operations                  | L. Hours | 45.00           | 44.51       | 2,002.95    | 1.0         | 2,002.95   |
| Preserve Office            | Janitorial                  | Sq. Ft.  | 180.00          | 1.70        | 306.00      | 1.0         | 306.00     |
| Utilities, Annual          | Elec., Gas, Water           | Sq. Ft.  | 180.00          | 1.00        | 180.00      | 1.0         | 180.00     |
| Telephone Charges, Annual  | Cell Phone Charges 8 phones | Year     | 1.08            | 720.00      | 777.60      | 1.0         | 777.60     |
| Office Supplies, Year      | Supplies                    | Person   | 0.90            | 250.00      | 225.00      | 1.0         | 225.00     |
| Furniture                  | Desk                        | Item     | 0.90            | 250.00      | 225.00      | 1.0         | 225.00     |
| Furniture                  | Chair                       | Item     | 0.90            | 150.00      | 135.00      | 1.0         | 135.00     |
| Furniture                  | Bookcase, 3'x5'             | Item     | 0.18            | 150.00      | 27.00       | 1.0         | 27.00      |
| Furniture                  | File cabinet                | Item     | 0.45            | 400.00      | 180.00      | 1.0         | 180.00     |
| Copier                     | Copier, 15-18 ppm           | Item     | 0.09            | 2,500.00    | 225.00      | 1.0         | 225.00     |
| Fax Machine                | Standard                    | Item     | 0.09            | 250.00      | 22.50       | 1.0         | 22.50      |
| Telephone                  | Touch-tone                  | Item     | 0.90            | 55.00       | 49.50       | 1.0         | 49.50      |
| E-Mail                     | Services                    | Year     | 0.09            | 500.00      | 45.00       | 1.0         | 45.00      |
| Computer, PC & Monitor     | 133 MHz Pentium             | Item     | 0.90            | 2,100.00    | 1,890.00    | 1.0         | 1,890.00   |
| Computer software          | Microsoft Office Pkg        | Item     | 0.72            | 450.00      | 324.00      | 1.0         | 324.00     |
| Computer software          | Consulting                  | Hour     | 0.09            | 1,500.00    | 135.00      | 1.0         | 135.00     |
| Laser Printer              | 600 DPI                     | Item     | 0.18            | 840.00      | 151.20      | 1.0         | 151.20     |
| Deskjet Printer            | HP DeskJet 895              | Item     | 0.27            | 499.00      | 134.73      | 1.0         | 134.73     |
| Sub-Total                  |                             |          |                 |             |             |             | 7,035.48   |

| Task list                               | Specificaton                   | Unit    | Number of Units | Cost / Unit | Annual Cost | Times Years | Total Cost        |
|---|--------------------------------|---------|-----------------|-------------|-------------|-------------|-------------------|
| <b>FIELD EQUIPMENT</b>                  |                                |         |                 |             |             |             |                   |
| Vehicle                                 | Toyota extra-cab 4X4           | Item    | 0.81            | 24,000.00   | 19,440.00   | 1.0         | 19,440.00         |
| Vehicle                                 | Fuel (444 gallons/vehicle/year | Gallons | 359.64          | 2.00        | 719.28      | 1.0         | 719.28            |
| Vehicle                                 | Maintenance                    | Year    | 0.09            | 5,000.00    | 450.00      | 1.0         | 450.00            |
| Vehicle Insurance                       | Insurance (9 x \$1,632/yr)     | Year    | 0.09            | 14,688.80   | 1,321.99    | 1.0         | 1,321.99          |
| Other                                   | all supplies 1st yr, see text  | Item    | 0.09            | 34,495.70   | 3,104.61    | 1.0         | 3,104.61          |
| Sub-Total                               |                                |         |                 |             |             |             | 25,035.88         |
| <b>OPERATIONS</b>                       |                                |         |                 |             |             |             |                   |
| Audit                                   | CPA Audit                      | Acre    | 642.15          | 0.55        | 353.18      | 1.0         | 353.18            |
| Insurance                               | Liability/Fee                  | Acres   | 642.15          | 0.37        | 237.60      | 1.0         | 237.60            |
| Sub-Total                               |                                |         |                 |             |             |             | 590.78            |
| <b>CONTINGENCY &amp; ADMINISTRATION</b> |                                |         |                 |             |             |             |                   |
| Contingency                             |                                |         |                 |             |             |             | 29,105.00         |
| Administration                          |                                |         |                 |             |             |             | 76,837.21         |
| Sub-Total                               |                                |         |                 |             |             |             | 105,942.21        |
| <b>Total</b>                            |                                |         |                 |             |             |             | <b>396,992.24</b> |

## Section 9 - Ongoing Tasks and Costs

Property Title: Carlsbad Funding Analysis

Dataset: CA004

PAR ID: RO61FIN

04/29/2004

Budget: Phase Budget 002 City of Carlsbad

| Task list                       | Specificaton                   | Unit      | Number of Units | Cost / Unit | Annual Cost | Divide Years | Total Cost |
|---------------------------------|--------------------------------|-----------|-----------------|-------------|-------------|--------------|------------|
| <b>SITE CONSTRUCTION/MAINT.</b> |                                |           |                 |             |             |              |            |
| Fence, 4' X 6' X 6'             | Post & 3/4" Cable              | Lin. Ft.  | 2,185.92        | 12.00       | 26,231.04   | 25           | 1,049.24   |
| Fence, 4' X 6' X 6'             | Post & 3/4" Cable Maintenance  | Lin. Ft.  | 218.59          | 12.00       | 2,623.08    | 1            | 2,623.08   |
| Fence - Installed               | Chain Link 6'                  | Lin. Ft.  | 1,092.96        | 9.85        | 10,765.66   | 25           | 430.63     |
| Fence - Installed               | Chain Link 6' Maintenance      | Lin. Ft.  | 109.30          | 9.85        | 1,076.61    | 1            | 1,076.61   |
| Fence - Installed               | Barbed-wire, 4 strd.           | Lin. Ft.  | 6,557.76        | 2.45        | 16,066.51   | 25           | 642.66     |
| Fence - Installed               | Barbed-wire, 4 strd.Maintain   | Lin. Ft.  | 655.78          | 2.45        | 1,606.66    | 1            | 1,606.66   |
| Gate                            | 16" arm swing                  | Item      | 4.50            | 2,500.00    | 11,250.00   | 20           | 562.50     |
| Vehicle Barrier                 | Concrete Bollard               | Lin. Ft   | 1,092.96        | 8.00        | 8,743.68    | 25           | 349.75     |
| Vehicle Barrier                 | Concrete Bollard maintain      | Lin. Ft   | 109.30          | 8.00        | 874.40      | 1            | 874.40     |
| Sub-Total                       |                                |           |                 |             |             |              | 9,215.53   |
| <b>BIOTIC SURVEYS</b>           |                                |           |                 |             |             |              |            |
| Project Management              | Supervise/coordinate           | L. Hours  | 50.00           | 44.51       | 2,225.50    | 1            | 2,225.50   |
| Plant Ecologist                 | Vegetation Mapping             | L. Hours  | 32.13           | 44.51       | 1,430.11    | 5            | 286.02     |
| Plant Ecologist                 | Sensitive Plant Species Survey | L. Hours  | 22.40           | 44.51       | 997.14      | 1            | 997.14     |
| Plant Ecologist                 | Monit. Enc Bacc & DM           | L. Hours  | 5.20            | 44.51       | 231.45      | 5            | 46.29      |
| Plant Ecologist                 | Spec.management &              | L. Hours  | 50.00           | 44.51       | 2,225.50    | 1            | 2,225.50   |
| Entomologist                    | Skipper surveys                | L. Hours  | 7.00            | 44.51       | 311.57      | 1            | 311.57     |
| Entomologist                    | Ant surveys                    | L. Hours  | 18.00           | 44.51       | 801.18      | 1            | 801.18     |
| Herpetologist                   | Pit-array monitoring           | L. Hours  | 62.40           | 44.51       | 2,777.42    | 2            | 1,388.71   |
| Herpetologist                   | Pit-array installation/maint   | L. Hours  | 15.60           | 32.08       | 500.45      | 3            | 166.82     |
| Mammalogist                     | Wildlife Corridors             | L. Hours  | 256.00          | 44.51       | 11,394.56   | 1            | 11,394.56  |
| Ornithologist                   | CSS, Chap, and grassland       | L. Hours  | 125.23          | 44.51       | 5,573.90    | 1            | 5,573.90   |
| Ornithologist                   | Riparian                       | L. Hours  | 26.40           | 44.51       | 1,175.06    | 1            | 1,175.06   |
| Ornithologist                   | LBV,WIFL nest monitoring       | L. Hours  | 48.00           | 44.51       | 2,136.48    | 1            | 2,136.48   |
| Ornithologist                   | CAGN dispersal studies         | L. Hours  | 312.00          | 44.51       | 13,887.12   | 6            | 2,314.52   |
| Science Director                | Planning and Review            | Hours     | 45.00           | 50.73       | 2,282.85    | 1            | 2,282.85   |
| Monitor Climate                 | Analyze data                   | L. Hours  | 8.33            | 44.51       | 370.92      | 1            | 370.92     |
| Other                           | Adaptive management            | Item      | 0.09            | 30,000.00   | 2,700.00    | 1            | 2,700.00   |
| Sub-Total                       |                                |           |                 |             |             |              | 36,397.02  |
| <b>HABITAT MAINTENANCE</b>      |                                |           |                 |             |             |              |            |
| Erosion Control                 | Slope Stabilization            | L. Hours  | 160.20          | 22.76       | 3,646.15    | 5            | 729.23     |
| Seed Collection                 | Seed Banking                   | Accession | 0.36            | 2,500.00    | 900.00      | 15           | 60.00      |
| Plant Procurement               | Rooted cuttings                | Item      | 90.00           | 4.00        | 360.00      | 5            | 72.00      |
| Exotic Plant Control            | Supervision by botanist        | L. Hours  | 27.00           | 44.51       | 1,201.77    | 1            | 1,201.77   |
| Exotic Plant Control            | Laborers (5)                   | L. Hours  | 801.00          | 22.76       | 18,230.76   | 1            | 18,230.76  |
| Exotic Animal Control           | Supervise cowbird removal      | L. Hours  | 3.60            | 44.51       | 160.24      | 1            | 160.24     |
| Exotic Animal Control           | Cowbird trap checks-labor      | L. Hours  | 224.00          | 32.08       | 7,185.92    | 1            | 7,185.92   |
| Exotic Animal Control           | Cowbird Traps                  | Item      | 0.90            | 500.00      | 450.00      | 5            | 90.00      |
| Sub-Total                       |                                |           |                 |             |             |              | 27,729.92  |

| Task list                  | Specificaton                | Unit     | Number of Units | Cost / Unit | Annual Cost | Divide Years | Total Cost |
|----------------------------|-----------------------------|----------|-----------------|-------------|-------------|--------------|------------|
| <b>PUBLIC SERVICES</b>     |                             |          |                 |             |             |              |            |
| Patrolling                 | Supervising officer         | L. Hours | 160.20          | 35.19       | 5,637.44    | 1            | 5,637.44   |
| Patrolling                 | 4 rangers/ officers         | L. Hours | 640.80          | 32.08       | 20,556.86   | 1            | 20,556.86  |
| Trail                      | Maintenance                 | Mile     | 6.12            | 4,000.00    | 24,480.00   | 5            | 4,896.00   |
| Sign                       | Misc                        | Item     | 90.00           | 3.25        | 292.50      | 7            | 41.79      |
| Sign                       | Boundary 8" X 13.5"         | Item     | 365.85          | 5.25        | 1,920.71    | 10           | 192.07     |
| Sign                       | Sign posts u-channel        | Item     | 90.00           | 11.00       | 990.00      | 10           | 99.00      |
| Sign, Redwood              | Interpretive 4'X 6'         | Item     | 4.50            | 1,000.00    | 4,500.00    | 15           | 300.00     |
| Community Outreach         | Public outreach coordinator | L. Hours | 160.20          | 32.08       | 5,139.22    | 1            | 5,139.22   |
| Sub-Total                  |                             |          |                 |             |             |              | 36,862.38  |
| <b>GENERAL MAINTENANCE</b> |                             |          |                 |             |             |              |            |
| Hauling, Truck             | Truckload of trash          | Item     | 9.00            | 40.00       | 360.00      | 1            | 360.00     |
| Sub-Total                  |                             |          |                 |             |             |              | 360.00     |
| <b>REPORTING</b>           |                             |          |                 |             |             |              |            |
| Database Management        | Data analysis and reporting | L. Hours | 138.42          | 44.51       | 6,161.07    | 1            | 6,161.07   |
| GIS/CAD Management         | Data Management             | L. Hours | 80.10           | 44.51       | 3,565.25    | 1            | 3,565.25   |
| Annual Reports             | Reporting coordination      | L. Hours | 22.50           | 44.51       | 1,001.48    | 1            | 1,001.48   |
| Management Plan            | Initial Report              | L. Hours | 18.00           | 44.51       | 801.18      | 3            | 267.06     |
| Sub-Total                  |                             |          |                 |             |             |              | 10,994.86  |
| <b>OFFICE MAINTENANCE</b>  |                             |          |                 |             |             |              |            |
| Administrative             | Operations                  | L. Hours | 45.00           | 44.51       | 2,002.95    | 1            | 2,002.95   |
| Preserve Office            | Janitorial                  | Sq. Ft.  | 180.00          | 1.70        | 306.00      | 30           | 10.20      |
| Utilities, Annual          | Elec., Gas, Water           | Sq. Ft.  | 180.00          | 1.00        | 180.00      | 1            | 180.00     |
| Telephone Charges, Annual  | Cell Phone Charges 8 phones | Year     | 1.08            | 720.00      | 777.60      | 1            | 777.60     |
| Office Supplies, Year      | Supplies                    | Person   | 0.90            | 250.00      | 225.00      | 1            | 225.00     |
| Furniture                  | Desk                        | Item     | 0.90            | 250.00      | 225.00      | 10           | 22.50      |
| Furniture                  | Chair                       | Item     | 0.90            | 150.00      | 135.00      | 5            | 27.00      |
| Furniture                  | Bookcase, 3'x5'             | Item     | 0.18            | 150.00      | 27.00       | 8            | 3.38       |
| Furniture                  | File cabinet                | Item     | 0.45            | 400.00      | 180.00      | 10           | 18.00      |
| Copier                     | Copier, 15-18 ppm           | Item     | 0.09            | 2,500.00    | 225.00      | 8            | 28.13      |
| Fax Machine                | Standard                    | Item     | 0.09            | 250.00      | 22.50       | 5            | 4.50       |
| Telephone                  | Touch-tone                  | Item     | 0.90            | 55.00       | 49.50       | 5            | 9.90       |
| E-Mail                     | Services                    | Year     | 0.09            | 500.00      | 45.00       | 1            | 45.00      |
| Computer, PC & Monitor     | 133 MHz Pentium             | Item     | 0.90            | 2,100.00    | 1,890.00    | 4            | 472.50     |
| Computer software          | Microsoft Office Pkg        | Item     | 0.72            | 450.00      | 324.00      | 4            | 81.00      |
| Computer software          | Consulting                  | Hour     | 0.09            | 1,500.00    | 135.00      | 1            | 135.00     |
| Laser Printer              | 600 DPI                     | Item     | 0.18            | 840.00      | 151.20      | 4            | 37.80      |
| Deskjet Printer            | HP DeskJet 895              | Item     | 0.27            | 499.00      | 134.73      | 6            | 22.46      |
| Sub-Total                  |                             |          |                 |             |             |              | 4,102.92   |

| Task list                               | Specificaton                   | Unit    | Number of Units | Cost / Unit | Annual Cost | Divide Years | Total Cost |
|---|--------------------------------|---------|-----------------|-------------|-------------|--------------|------------|
| <b>FIELD EQUIPMENT</b>                  |                                |         |                 |             |             |              |            |
| Vehicle                                 | Toyota extra-cab 4X4           | Item    | 0.81            | 24,000.00   | 19,440.00   | 8            | 2,430.00   |
| Vehicle                                 | Fuel (444 gallons/vehicle/year | Galkons | 359.64          | 2.00        | 719.28      | 1            | 719.28     |
| Vehicle                                 | Maintenance                    | Year    | 0.09            | 5,000.00    | 450.00      | 1            | 450.00     |
| Vehicle Insurance                       | Insurance (9 x \$1,632/yr)     | Year    | 0.09            | 14,688.80   | 1,321.99    | 1            | 1,321.99   |
| Other                                   | all supplies, see text         | Item    | 0.09            | 13,870.59   | 1,248.35    | 1            | 1,248.35   |
| Sub-Total                               |                                |         |                 |             |             |              | 6,169.62   |
| <b>OPERATIONS</b>                       |                                |         |                 |             |             |              |            |
| Audit                                   | CPA Audit                      | Acre    | 642.15          | 0.55        | 353.18      | 1            | 353.18     |
| Insurance                               | Liability/Fee                  | Acres   | 642.15          | 0.37        | 237.60      | 1            | 237.60     |
| Sub-Total                               |                                |         |                 |             |             |              | 590.78     |
| <b>CONTINGENCY &amp; ADMINISTRATION</b> |                                |         |                 |             |             |              |            |
| Contingency                             |                                |         |                 |             |             |              | 13,242.30  |
| Administration                          |                                |         |                 |             |             |              | 34,959.68  |
| Sub-Total                               |                                |         |                 |             |             |              | 48,201.98  |
| Total                                   |                                |         |                 |             |             |              | 180,625.01 |

## Section 10 - Financial Summary

Property Title: Carlsbad Funding Analysis

Dataset: CA004

PAR ID: RO61FIN

04/29/2004

| Phase Budget 002 City of Carlsbad  | (603 ac.) | Rate<br>% | Total<br>\$      |
|--|-----------|-----------|------------------|
| <b>INITIAL FINANCIAL REQUIREMENTS</b>  |           |           |                  |
| I & C Revenue  |           |           | 0                |
| I & C Management Costs   |           |           | 291,050          |
| I & C Contingency Expense  |           | 10.00     | 29,105           |
| Total I & C Management Costs   |           |           | 320,155          |
| I & C Administrative Costs of Total I & C Management Costs                             |           | 24.00     | 76,837           |
| Total I & C Costs  |           |           | 396,992          |
| Net I & C Management and Administrative Costs  |           |           | 396,992          |
| <b>ANNUAL ONGOING FINANCIAL REQUIREMENTS</b>   |           |           |                  |
| Ongoing Costs  |           |           | 132,423          |
| Ongoing Contingency Expense  |           | 10.00     | 13,242           |
| Total Ongoing Management Costs   |           |           | 145,665          |
| Ongoing Administrative Costs of Total Ongoing Management costs                         |           | 24.00     | 34,960           |
| Total Ongoing Costs  |           |           | 180,625          |
| <b>ENDOWMENT REQUIREMENTS FOR ONGOING STEWARDSHIP</b>                                  |           |           |                  |
| Endowment to Provide Income of \$180,625   |           |           | 4,013,889        |
| Endowment per Acre is \$6,657.   |           |           |                  |
| Ongoing Management Costs Based on 4.50% of Endowment per Year.                         |           |           |                  |
| Ongoing Management Funding is \$180,625 per Year Resulting in \$300 per Acre per Year. |           |           |                  |
| <b>TOTAL CONTRIBUTION</b>  |           |           | <b>4,410,881</b> |

**San Diego Association of Governments**  
**ENVIRONMENTAL MITIGATION PROGRAM**  
**WORKING GROUP**

September 11, 2007

AGENDA ITEM NO.: **4**

**Action Requested: DISCUSSION/RECOMMENDATION**

REFINING COSTS FOR REGIONAL HABITAT MANAGEMENT AND MONITORING

File Number 3002700

**Introduction**

On July 13, 2007, the SANDAG Policy Board held a workshop on Habitat Preservation. As a result of the workshop, the SANDAG Policy Board has directed staff to work with the local jurisdiction, stakeholders, and knowledgeable experts to refine the costs associated with the regional habitat conservation plans, if possible. SANDAG staff has been directed to present refined costs at the October 12, 2007, Policy Board Meeting for future discussion by the Board. The EMP Working Group is assisting SANDAG staff with the review of the cost to implement the regional habitat conservation plans.

At the August 14, 2007, meeting of the EMP Working Group, the members heard presentations from Dr. Jun Onaka on his work defining the cost of habitat management based upon the Multiple Habitat Conservation Plan (MHCP), the County of San Diego on the cost for management and monitoring of existing and proposed county open space, and the City of Carlsbad on their cost estimates for the city's Open Space Management Plan. These presentations represent three different approaches toward understanding the true cost of land management (see Item 2 for a summary of these presentations).

Since the last Working Group meeting, SANDAG staff has compiled and analyzed information on land management and monitoring in a format to continue discussion and possible resolution on this topic. The goal of the Working Group discussion is to provide recommendations for SANDAG staff to consider in developing a response back to the SANDAG Policy Board in October.

**Discussion**

As part of the Integrated Regional Infrastructure Strategy (IRIS) – an appendix of the Regional Comprehensive Plan (2004) - regional cost estimates were reviewed and refined for the habitat conservation plans. Estimates were based upon those costs identified in the habitat conservation plans and revised through discussions at joint stakeholder's meeting held on December 2, 2003. These revised cost estimates were approved by the SANDAG Board of Directors as part of the adoption of the Regional Comprehensive Plan in July 2004. In December 2006, the cost estimates were updated to reflect inflation since 2004 and presented to the SANDAG Board on January 12, 2007 (Figure 1).

**Figure 1: Estimated Regional Cost for Habitat Preservation**

|  | MHCP           | MSCP<br>South  | North<br>County<br>MSCP | East<br>County<br>MSCP | TOTAL            |
|--|----------------|----------------|-------------------------|------------------------|------------------|
| Sum of Total One-time Cost                               | \$48.0         | \$179.5        | \$221.6                 | \$100.7                | \$549.8          |
| Sum of Annual Recurring Costs                            | \$54.7         | \$247.5        | \$155.0                 | \$70.4                 | \$527.5          |
| Sum of Annual Deposits to<br>Endowment Fund              | \$44.1         | \$199.6        | \$125.0                 | \$56.8                 | \$425.5          |
| <b>Total One-time and Annual Costs Over<br/>40 Years</b> | <b>\$146.9</b> | <b>\$626.6</b> | <b>\$501.6</b>          | <b>\$227.9</b>         | <b>\$1,502.9</b> |

### Management and Monitoring

In order to update the costs associated with regional habitat conservation plans, SANDAG staff needs additional input on the cost of management and monitoring. Of the total estimated cost to complete the regional habitat conservation programs (\$1,503 million), \$528 million (35.1 percent) would be needed for habitat management and monitoring and \$426 million (28.3 percent) is required to build up a permanent endowment over forty years. Collectively, 63 percent of the necessary funding for the regional habitat conservation plans will go to cover the ongoing cost of management and monitoring.

In the review of the MSCP South and MHCP plans, it became obvious that terminology is critical in understanding what is meant by management and monitoring. For purposes of regional cost refinement, the following definitions are used for this discussion:

| Categories   | Examples   |
|--|--|
| <b>Land or Stewardship Management - Basic property management to protect the existing habitat. Annual Cost.</b>  | Fence Repair, Continuing Trash Removal, Trail Maintenance, Signage Installation, Enforcement, Fire (Brush) Management              |
| <b>Adaptive Habitat Management Contingency - Biological management based upon experimental testing to enhance native species and reduce non-native species. This includes preserve-level monitoring, observational studies to assess the condition of a preserve unit, and general status of the vegetation and species in a preserve unit. Annual cost.</b> | Invasive Species Removal, Habitat Restoration Projects, Tracking and Reporting Success of Projects                                 |
| <b>Preparation of Area Specific Management Directives - Management plans designed to identify a list of actions for the management (stewardship and adaptive) of a given preserve unit. One-time cost.</b>   | Baseline Biological and Cultural Surveys, Plan Preparation, Including Graphics, Incorporation into a Geographic Information System |

|   |  |
|---|--|
| <b>Start-up Costs</b> - <i>Initial cost of site preparation (excluding land acquisition costs). One-time cost</i>   | Initial Fencing, Litter Removal, Initial Habitat Restoration   |
| <b>Regional Biological Monitoring</b> - <i>Statistically robust, quantitative, or semi-quantitative monitoring designed to establish regional status and trends of species and vegetation communities. Annual cost.</i> | Rare Plant and Faunal Monitoring Tracking Status and Trend, Vegetation Change, Monitoring, Wildlife Corridor Monitoring              |
| <b>Program Administration</b> - <i>Implementation of plan. Annual cost.</i>   | Coordination and Implementation of Subarea Plan, Legal Support, Financial Management, Database Management, Facilities and Equipment. |

The MSCP South and MHCP plans were developed several years apart and, as explained above, cost estimates were updated as part of the IRIS. As such, the approach toward the management and monitoring vary, as well as their associated costs. In addition, more management is being conducted which has resulted in a better understanding of the true cost of land management. Finally, revisions to the regional biological monitoring programs are being completed to assess the efficiency and effectiveness of the current protocols and approaches.

For purposes of discussion, a side-by-side comparison of the costs estimated in the MSCP, MHCP, and IRIS was prepared, along with cost estimates from the County of San Diego, the City of San Diego, and the City of Carlsbad (Attachment 1, pages 35-38). These three jurisdictions were selected since they represent a large portion of the region to be managed under the regional habitat conservation plans and have existing data on cost estimates for management and monitoring that could be readily allocated into the categories described above.

### **Land or Stewardship Management**

Basic land management or stewardship requires an active presence on the property. Comparison across the County, City of San Diego, and the City of Carlsbad shows a close correspondence on the actual and estimated land/stewardship management costs (\$100 to \$114 per acre). These are average costs with the expectations that some land will require more stewardship and others less. While higher than estimated under the MSCP (\$51 to \$64 per acre) or IRIS (\$81 per acre), these costs appear reasonable. Note: the MHCP included adaptive management, monitoring and development of Area Specific Management Directives along with stewardship management costs (\$144 per acre). SANDAG staff would like input on using \$100 per acre for stewardship management for the County of San Diego, and \$114 per acre for the remaining lands.

### **Adaptive Habitat Management Contingency**

Biological systems are affected by a variety of biotic (e.g., weed invasion) and abiotic (e.g., fire) factors that could impact the condition of the habitat quality being managed. Adaptive management is a process of using science or “active learning” to increase management success to address unforeseen changes, as well as understanding the processes which controls the habitat and dependent species. Adaptive management should not be confused with one-time costs for initially

restoring degraded habitat; instead, it is recommended it be viewed as an ongoing cost. The MSCP South did not directly address adaptive management in its cost estimates. The MHCP and the IRIS included 15 percent of the total stewardship management cost as a contingency for adaptive management.

The county has estimated the need for \$100 per acre for adaptive management and biological monitoring, \$50 per acre for each task. The City of San Diego completed an analysis of the cost to develop of an adaptive management section within the current Open Space Management Division of the Park and Recreation Department (Attachment 1, pages 40-41). This includes personnel expenses for additional management staff and non-personnel expenses for equipment and specialized consultants for a total estimate of \$32 per acre. Based upon the Carlsbad Property Analysis Record, SANDAG staff estimated that between \$17 and \$28 per acre would be required for adaptive management under the Carlsbad Open Space Management Plan.

While no rule of thumb exists for adaptive management of biological systems, adaptive management in the context that it is being described above consists of two parts; active learning about the habitat systems (i.e., the biological drivers of the ecosystem processes) and the implementation of actions to address unforeseen circumstances that affect the biological resources. It is conceded that there is overlap with scientific research and adaptive management as previously characterized, but the research envisioned would be directed towards management of habitat systems and having funding to adapt as needed. Lacking any additional insight, SANDAG would like input on the proposal to apply an additional 30 percent of the overall land stewardship costs for adaptive management.

### **Area Specific Management Directive (ASMD) Preparation**

The regional habitat conservation plans require the preparation of ASMDs, sometimes referred to as natural resource management plans. The ASMDs would be based on a specific management area (portion of the preserve being managed as a unit (e.g., Mission Trails Regional Park, Crestridge Ecological Preserve). Based on recent natural resource management plans in the City of San Diego (Attachment 1, page 39), there is a very large economy-of-scale for preparation of these plans. The average cost per acre for these plans was \$107 per acre with a large variance. The actual cost to develop these plans has a lower variance with an average of \$113,000 per plan. The City of Carlsbad has completed its Open Space Management Plan at a cost of \$95,900.

The ASMD preparations are one-time costs. In projecting out the regional costs, a problem arises in assigning a minimum size for the ASMD area. The County has estimated the need for \$100,000 per 200 acres annual for ASMD preparation for new plans (\$500 per acre), and \$373 per acre for the preparation of ASMDs for existing preserves. The total cost for ASMD preparation in the county is estimated at \$9.6 million. The IRIS assumed a total of \$13.0 million for the region.

While consistent with the IRIS, the cost for ASMD preparation may be viewed as high. If ASMDs were prepared on areas over 600 acres, or once every third year for new acquisitions in the County it would result in a decrease in cost to \$167 per acre. As a point of reference, the average existing preserve in the County is 1,049 acres with the minimum of 98 acres (Agua Caliente) and a maximum of 3,530 acres (Oak Oasis/El Capitan). SANDAG staff would like input on the cost for ASMD preparation.

## **Start-up Costs**

Start-up costs include the initial activity required to increase the habitat quality of the preserve and develop the capacity for land management by the jurisdictions or as a subregion. The IRIS assumed a total of \$129.3 million for regional start-up costs. The County of San Diego estimated a cost of \$1,000 per acre for initial land stewardship. This is consistent with Caltrans' recent efforts for initial clean up and restoration of the Groves mitigation site and is within the costs estimated by the IRIS. SANDAG staff would recommend that the number estimated in IRIS not be modified.

## **Regional Biological Monitoring**

Regional biological monitoring is the ongoing cost required to track the status and trends of species and vegetation types over the region. It is distinct from observational monitoring done on a preserve area for management and included in the cost for adaptive management. Costs for regional monitoring have ranged from \$220,000 annually in the MSCP South, to \$1.65 million under the IRIS. The individual jurisdictions have estimated costs from \$7.34 per acre to \$96 per acre.

Regional Biological Monitoring is a component of the habitat conservation plans that may be best thought of as a comprehensive cost, instead of a per acre need. There is a significant cost-savings with addressing the coordination of regional biological monitoring through one organization. On December 12, 2006, the Conservation Biology Institute presented their findings and proposal on a *Comparative Review of Governance Structures for Ecosystem Management* (November 2006) to the EMP Working Group (see [www.consbio.org/cbi/projects/show.php?page=governance](http://www.consbio.org/cbi/projects/show.php?page=governance)). Table 4, page 23 identifies a proposed annual operating budget for a centralized monitoring and adaptive management coordination and implementation function. The annual cost was estimated to be \$1.18 million  $\pm$  10 percent. This does not include the cost for land management (previously addressed above) or outside contractors. Assuming, as was done with the City of San Diego's analysis on adaptive management (Attachment 1, pages 40-41), a cost of 75 percent of the total personnel expenses (\$650,000) for consultants and equipment (\$502,500), the total amount would be \$1.7 million  $\pm$  10 percent.

There also is a large amount of uncertainty associated with these costs due to the recent efforts to update and revise the biological monitoring programs for flora, fauna, and vegetation. SANDAG staff would like input on retaining the cost in the IRIS (\$1.65 million annually) with an additional 20 percent to address changes resulting from the yet to be completed updates to the regional biological monitoring plans. This would result in \$1.98 million annually, a figure comparable to that generated from the Conservation Biology Institute's regional approach.

## **Program Administration**

The cost to administer management and the other elements of the regional habitat conservation programs was estimated at \$2.38 million annually by the IRIS (9 percent of total ongoing costs); broken down as follows: (\$1.33 million for MSCP South, \$460,000 for the MHCP, \$410,000 for MSCP North, and \$190,000 for the East County MSCP). The jurisdictions estimate is between 5 to 7 percent of the total annual ongoing costs for administration; these costs do not include overhead. SANDAG staff would recommend that the number estimated in IRIS not be modified.

## Conclusion

After reviewing the estimates in the MSCP South, MHCP, IRIS, and information provided from the jurisdictions, SANDAG would like input on the following cost refinements.

Land or Stewardship Management: \$100 - \$114 per acre annually.

Adaptive Habitat Management: \$30 - \$34 per acre annually.

Regional Biological Monitoring: \$8.2 per acre annually (\$1.98 million annually)

Program Administration: \$9.9 per acre annually

No changes suggested to one-time start-up costs for land management.

SANDAG would like input on the cost for ASMD preparation.

Taking into consideration of the EMP Working Group, SANDAG will modify the IRIS estimates for the costs associated with the regional habitat conservation plans and provide updated costs to the SANDAG Policy Board in October.

Attachments: 1. Management and Monitoring Information

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**Agenda Item #4, Attachment 1**  
**Environmental Mitigation Program Working Group**  
**September 11, 2007**

| 2006 \$   | MSCP South        | MHCP                   | IRIS (December Update)       | County of San Diego        | City of San Diego | City of Carlsbad OSMP | City of Carlsbad City Owned Land |
|---|-------------------|------------------------|------------------------------|----------------------------|-------------------|-----------------------|----------------------------------|
| <b>Land or Stewardship Management - Basic property management to protect the existing habitat.</b>  |                   |                        | Includes MSCP North and East | MSCP South, North and East |                   |                       |                                  |
| <b>examples</b>   |                   |                        |                              |                            |                   |                       |                                  |
| Fence Repair, Continuing Trash Removal, Trail Maintenance, Signage Installation, Enforcement, Fire Management   | \$5.83 M          | \$1.94 M               | \$19.29 M                    |                            |                   |                       |                                  |
| <b>Ongoing cost/acre</b>  | \$51 - \$64       | \$144.28               | \$80.46                      | \$100.00                   | \$114             | \$101                 | \$107                            |
| <b>Adaptive Habitat Management Contingency - Biological management based upon experimental testing to enhance native species and reduce non-native species. This includes preserve-level monitoring, observational studies to assess the condition of a preserve unit</b> |                   |                        |                              |                            |                   |                       |                                  |
| <b>examples</b>   |                   | 15% of land Management | 15% of land Management       |                            |                   |                       |                                  |
| Invasive Species Removal, Habitat Restoration Projects, Tracking and Reporting Success of Projects  |                   | \$0.29 M               | \$2.88 M                     |                            |                   |                       |                                  |
| <b>Ongoing cost/acre</b>  | Not Identified    | \$21.29                | \$12.01                      | \$50.00                    | \$31.76           | \$17.06               | \$27.49                          |
| <b>Preparation of Area Specific Management Directives - Management plans designed to identify a list of actions for the management (stewardship and adaptive) of a given preserve unit.</b>   |                   |                        |                              |                            |                   |                       |                                  |
| <b>examples</b>   |                   |                        |                              | new \$500/ac               |                   |                       |                                  |
| Baseline Biological and Cultural Surveys, Plan Preparation, including graphics, Incorporation into a GIS  |                   |                        |                              | existing \$373/ac          | \$107/ac          | \$13.44/ac            | \$24.83/ac                       |
| <b>One-time cost</b>  | Not Identified    | Part of Management     | \$13.0 M                     | \$9.6 M                    | Not Identified    | \$0.95 M              | \$0.15 M                         |
| <b>Start-up Costs - Initial cost of site preparation. (Does not include land acquisition costs).</b>  |                   |                        |                              |                            |                   |                       |                                  |
| <b>examples</b>   |                   |                        |                              |                            |                   |                       |                                  |
| Initial Fencing, Litter Removal, Initial Restoration  |                   |                        |                              |                            |                   |                       |                                  |
| <b>One-time cost</b>  | Not Identified    | \$6.65 M               | \$129.3 M                    | \$15.8 M                   | Not Identified    | \$1.6 M               | \$0.14 M                         |
| <b>Regional Biological Monitoring - Statistically robust, quantitative or semi-quantitative monitoring designed to establish regional status and trends of species and vegetation communities.</b>  |                   |                        |                              |                            |                   |                       |                                  |
| <b>examples</b>   |                   |                        |                              |                            |                   |                       |                                  |
| Rare Plant and Faunal Monitoring Tracking Status and Trend, Vegetation Change, Monitoring, Wildlife Corridor Monitoring   | \$0.22 M          |                        | \$1.65 M                     |                            |                   |                       |                                  |
| <b>Ongoing average annual cost/acre</b>   | \$1.43 - \$5.28   | Part of Management     | \$6.88                       | \$50.00                    | \$7.34            | \$72.01               | \$96.11                          |
| <b>Program Administration - Implementation of plan.</b>   |                   |                        |                              |                            |                   |                       |                                  |
| <b>examples</b>   | avg. 11% of total | 16.5% of total         | 9% of total                  |                            |                   |                       |                                  |
| Coordination and implementation of subarea plan, legal support, financial management, database management, facilities and equipment.  | \$0.35 M          | \$0.44 M               | \$2.38 M                     |                            | 7% of total       | 5% of total           | 7% of total                      |
| <b>Ongoing Average cost/acre</b>  | \$2.93 - \$16.9   | \$32.75                | \$9.93                       | Included in cost above     | \$11.71           | \$10.25               | \$16.69                          |
| <b>One-time Management Costs:</b>   | Not Identified    | \$6.65 M               | \$142.3 M                    | \$25.4 M                   | Not Identified    | \$142.3 M             | \$142.3 M                        |
| <b>Ongoing Manag. &amp; Monit. Costs per acre:</b>  | \$52.43 - \$68.28 | \$198.31               | \$109.29                     | \$200.00                   | \$165.23          | \$200.35              | \$247.70                         |

PROJECTED ANNUAL COSTS - COUNTY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) PLANS

| New Acquisitions             |       |             |             |             |             | Final Year<br>SC MSCP | Final Year<br>NC MSCP |             | Final Year<br>EC MSCP | TOTAL ALL MSCP<br>PLANS |
|------------------------------|-------|-------------|-------------|-------------|-------------|-----------------------|-----------------------|-------------|-----------------------|-------------------------|
| Year                         | 07-08 | 08-09       | 09-10       | 10-11       | 11-12..     | ..31-32..             | ..44-45..             | ...48-49    | 49-50                 |                         |
| Acreage                      |       | 310         | 620         | 930         | 1240        | 7440                  | 7879                  | 3,542       | 3,875                 |                         |
| <b>One-Time Costs</b>        |       |             |             |             |             |                       |                       |             |                       |                         |
| Land Cost                    |       | \$4,650,000 | \$4,650,000 | \$4,650,000 | \$4,650,000 | \$4,650,000           | \$5,030,000           | \$5,000,000 | \$5,000,000           | \$201,990,000           |
| Real Estate Services         |       | \$31,000    | \$31,000    | \$31,000    | \$31,000    | \$31,000              | \$40,200              | \$33,400    | \$33,400              | \$1,433,600             |
| Initial Stewardship          |       | \$310,000   | \$310,000   | \$310,000   | \$310,000   | \$310,000             | \$402,000             | \$334,000   | \$334,000             | \$14,336,000            |
| ASMD (includes surveys)      |       | \$155,000   | \$155,000   | \$155,000   | \$155,000   | \$155,000             | \$201,000             | \$167,000   | \$167,000             | \$7,168,000             |
| Subtotal One-Time Costs      |       | \$5,146,000 | \$5,146,000 | \$5,146,000 | \$5,146,000 | \$5,146,000           | \$5,673,200           | \$5,534,400 | \$5,534,400           | \$224,927,600           |
| <b>Ongoing Costs</b>         |       |             |             |             |             |                       |                       |             |                       |                         |
| Ongoing Stewardship          |       | \$31,000    | \$62,000    | \$93,000    | \$124,000   | \$744,000             | \$787,900             | \$354,200   | \$387,500             | \$18,003,800            |
| Ongoing Monitoring/Adap. Mgt |       | \$31,000    | \$62,000    | \$93,000    | \$124,000   | \$744,000             | \$787,900             | \$354,200   | \$387,500             | \$18,003,800            |
| Subtotal Ongoing Costs       |       | \$62,000    | \$124,000   | \$186,000   | \$248,000   | \$1,488,000           | \$1,575,800           | \$708,400   | \$775,000             | \$36,007,600            |

PROJECTED ANNUAL COSTS - EXISTING ALL COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP)

|                                     | South County*      | North County       | East County        | TOTALS             |
|-------------------------------------|--------------------|--------------------|--------------------|--------------------|
| Acreage                             | 11,902             | 11,901             | 10,767             | 34,570             |
| <b>One-Time Costs</b>               |                    |                    |                    |                    |
| One-time ASMDs                      | \$0                | \$1,275,000        | \$1,120,000        | \$2,395,000        |
| <b>Ongoing Costs</b>                |                    |                    |                    |                    |
| Annual Ongoing Stewardship          | \$1,190,200        | \$1,190,100        | \$1,076,700        | \$3,457,000        |
| Annual Ongoing Monitoring/Adap. Mgt | \$1,190,200        | \$1,190,100        | \$1,076,700        | \$3,457,000        |
| <b>Total Annual Ongoing</b>         | <b>\$2,380,400</b> | <b>\$3,655,200</b> | <b>\$3,273,400</b> | <b>\$6,914,000</b> |

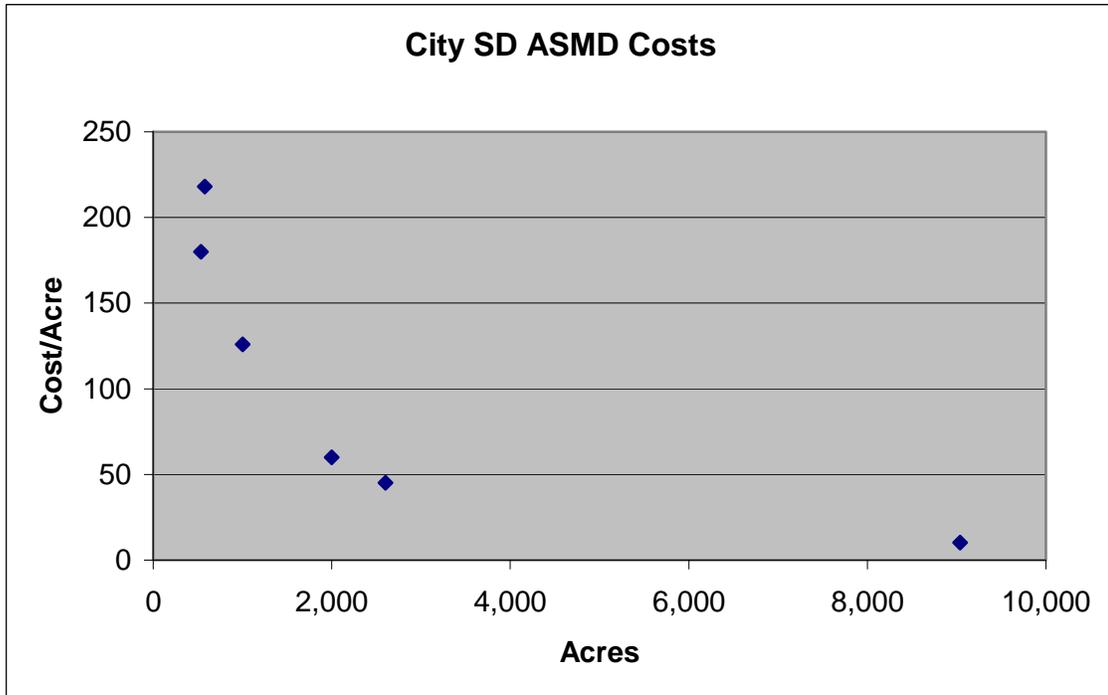
City of San Diego Open Space FY06 Estimated Maintenance Costs

|   | <i>PE</i>       | <i>NPE</i>      | <i>Total</i>    |
|---|-----------------|-----------------|-----------------|
| <b>Open Space Expenses*</b>   | \$ 2,838,582.22 | \$ 1,867,235.77 | \$ 4,705,817.99 |
| <i>Unrelated Costs**</i>  | \$ 237,246.53   | \$ 262,342.92   | \$ 499,589.45   |
| <i>Street Medians</i>   | \$ 284,999.56   | \$ 795,561.83   | \$ 1,080,561.39 |
| <i>Brush Management</i>   | \$ 188,501.89   | \$ 136,069.50   | \$ 324,571.39   |
| <i>Administration</i>   | \$ 217,585.84   | \$ 72,532.01    | \$ 290,117.85   |
| <b>Total backed out costs</b>   |                 |                 | \$ 2,194,840.08 |
| <i>Land Mgmt. Total</i>   | \$ 1,910,248.40 | \$ 600,729.51   | \$ 2,510,977.91 |
| <i>Acres</i>  |                 |                 | 24,781          |
| <b>Cost per acre</b>  |                 |                 | \$ 101.33       |
| <p>* Includes General, Los Pen, and Environmental Growth Funds.<br/> ** Includes MADs teminal leave, Recreation Center Director costs, facility costs such as security, utilities, janitorial and landscape services, building and office materials, etc.</p> |                 |                 |                 |

|                                      |           |  | CARLSBAD OSMP      |         |           | CARLSBAD PRESERVE |         |           |
|--------------------------------------|-----------|--|--------------------|---------|-----------|-------------------|---------|-----------|
|                                      |           |  | Cost               | Acreage | Cost/Acre | Cost              | Acreage | Cost/Acre |
| <b>Stewardship Management</b>        |           |  |                    |         |           |                   |         |           |
|                                      | One-time: | Site Construction/ Maint.  | \$811,743          |         |           | \$73,057          |         |           |
|                                      | One-time: | Habitat Maint. (Up Front Exotic Removal)   | \$500,000          |         |           | \$45,000          |         |           |
|                                      | One-time: | Management Plan  | \$8,902            |         |           | \$801             |         |           |
|                                      | On-going: | Public Service & General Maint. - Enforcement, Trails, Signage, Trash Removal and Outreach | \$709,741          |         |           | \$63,877          |         |           |
|                                      | On-going: | Annual Reporting   | \$11,128           |         |           | \$1,001           |         |           |
| <b>Adaptive Management</b>           |           |  |                    |         |           |                   |         |           |
|                                      | On-going: | Habitat Maint.   | \$110,575          |         |           | \$13,904          |         |           |
|                                      | On-going: | Adaptive Management  | \$30,000           |         |           | \$2,700           |         |           |
| <b>Preserve Monitoring</b>           |           |  |                    |         |           |                   |         |           |
|                                      | On-going: | Biological Monitoring  | \$405,725          |         |           | \$48,321          |         |           |
|                                      | On-going: | Database Management  | \$68,456           |         |           | \$6,161           |         |           |
|                                      | On-going: | GIS/CAD Management   | \$39,614           |         |           | \$3,565           |         |           |
| <b>Program Administration</b>        |           |  |                    |         |           |                   |         |           |
|                                      | One-time: | Office Maint.  | \$39,295           |         |           | \$3,139           |         |           |
|                                      | On-going: | Office Maint.  | \$38,877           |         |           | \$3,897           |         |           |
|                                      | One-time: | Field Equipment  | \$250,496          |         |           | \$19,440          |         |           |
|                                      | On-going: | Field Equipment  | \$27,681           |         |           | \$5,596           |         |           |
|                                      | On-going: | Operations - Audit and Ins.  | \$6,564            |         |           | \$591             |         |           |
| <b>Administrative Overhead (24%)</b> |           |  |                    |         |           |                   |         |           |
|                                      | On-going: |  | \$807,523          |         |           | \$76,837          |         |           |
| <b>Contingency (10%)</b>             |           |  |                    |         |           |                   |         |           |
|                                      | On-going: |  | \$305,880          |         |           | \$29,105          |         |           |
|                                      |           | <b>TOTAL</b>   | <b>\$4,172,199</b> |         |           | <b>\$396,992</b>  |         |           |
|                                      | One-time: | <b>TOTAL</b>   | <b>\$1,610,436</b> |         |           | <b>\$141,437</b>  |         |           |
|                                      | On-going: | <b>TOTAL</b>   | <b>\$1,882,398</b> |         |           | <b>\$180,625</b>  |         |           |
| <b>OSMP/ASMD Preparation</b>         |           |  | \$95,900           |         |           | \$15,000          |         |           |

**Recent Natural Resource Management Plan Costs  
City of San Diego**

|                                  | <i>Acres</i> | <i>Cost</i> | <i>Cost/Acre</i> |
|----------------------------------|--------------|-------------|------------------|
| <b>Telecote</b>                  | 1000         | \$126,000   | \$126            |
| <b>Carmel Mountain</b>           | 534          | \$96,149    | \$180            |
| <b>Marron Valley</b>             | 2600         | \$117,186   | \$45             |
| <b>Western Otay River Valley</b> | 2000         | \$120,000   | \$60             |
| <b>San Diego River</b>           | 578          | \$126,000   | \$218            |
| <b>Lake Hodges/ San Pasqual</b>  | 9036         | \$93,055    | \$10             |
| Mean                             |              | \$113,065   | \$107            |
| Stdev                            |              | \$14,739    | \$82             |



## City of San Diego Adaptive Management Proposal

The City of San Diego believes that a group of employees is needed to focus on adaptive management activities and is the best way to meet the fluctuating needs of adaptive management for the MSCP preserve.

Preliminary thoughts are that the section would be made up of Resource Manager, Biologist, Preserve Maintenance Manager, and an Administrative Assistant. The duties would include:

Resource Manager:

- Section supervision
- Liaison with other city departments and federal and state wildlife agencies
- Oversee acquisition of required permits for proposed projects
- Manage section budget and prioritize projects

Biologist:

- Project management
- Oversee as-needed biological consultant services
- Preparation of biological technical reports for proposed projects and annual reporting
- Monitoring of invasive species populations and recommendations on proposed adaptive management projects

Preserve Maintenance Manager:

- Oversee as-needed maintenance contracts (hydro-seeding, erosion control, herbicide contractors, fencing, etc.)
- Herbicide applications
- Volunteer project coordinator

Administrative Assistant:

- Financial and milestone reporting
- Routing of internal city documents and approvals
- Contract/purchase order procurement and tracking

Non-personnel expenditures would include monies for as-needed biological consultant services, maintenance contractual services, equipment outlay, project implementation, and other unforeseen costs to meet adaptive management requirements. The NPE dollar amount in Table 1 was calculated by multiplying the personnel cost by 75 percent.

Table 1: Adaptive Management Section Cost

| <b>Adaptive Management Section</b> |              |
|------------------------------------|--------------|
| STAFF                              | LOADED COST  |
| Resource Manager                   | \$183,568.15 |
| Biologist II                       | \$138,464.37 |
| Preserve Maintenance Manager       | \$127,233.60 |
| Administrative Assistant           | \$95,122.64  |
| Subtotal                           | \$544,388.76 |
| NPE                                | \$408,291.57 |
| Total                              | \$952,680.33 |
| Per Acre Cost                      | \$31.76      |