APPENDIX D.

A Guide and Annotated Outline for Writing Preserve Management Plans for Preserve Areas Covered by the City of Carlsbad's HMP

(Adapted from the California Department of Fish and Game Guide and Outline for Writing Land Management Plans, February 2003)

USING THIS OUTLINE

This outline has been adapted from the California Department of Fish and Game's guide to preparation of land management plans (CDFG 2003) to help you write a preserve management plan that is useful and easily read by those who want information about preserve areas within the Carlsbad HMP preserve system. It is important to use a standardized format for the preserve management plan so that the City of Carlsbad and the wildlife agencies may easily review and confirm that the preserve management plan includes the necessary goals, objectives, actions, priorities, and area-specific management directives (ASMDs) to manage and monitor species and habitats within the context of the Carlsbad HMP and overall MHCP. Appropriately designed and developed preserve management plans will greatly facilitate the ability of the City of Carlsbad to maintain compliance with the permit conditions of its Implementing Agreement for the HMP. The CDFG land management plan format is being used for the CDFG lands within the City and provides a consistent template for the non-CDFG preserve areas.

This outline provides instructions and examples for writing each chapter. It also serves as an example for the required format. **Each chapter heading (identified by a Roman numeral) must be addressed within the plan.** The amount of information provided within each chapter will be determined by the intensity of management necessary to maintain the preserve area as viable wildlife habitat. **In some cases, it may not be necessary to use certain subheadings; these are listed as optional in the outline.**

Periodically, the CDFG Land Management Plan outline will be revised to reflect additional information, style improvements, and streamlining efforts. The preserve steward for the City of Carlsbad shall update this outline to maintain consistency with updates in the CDFG outline as needed.

SOME TIPS AND NECESSARY FORMAT INFORMATION:

A Table of Contents containing page numbers for chapters and sections must be provided.

Page numbers must appear on every page of your plan, including all maps, tables, and figures. Chapter I, Introduction, is page one and is always unnumbered. All pages preceding page one are numbered with lower case Roman numerals, starting with -i- on the Table of Contents page.

Tables and figures are placed immediately following the page where they are first mentioned in the text (for example, if Figure 1 is mentioned on page 3 for the first time, it appears as page 4).

All figures are prepared on 8-1/2 x 11-inch paper so that reproduction remains a simple task. To prepare professional-looking figures, maintain a minimum ½-inch border. Each figure and table must be numbered and titled. The title should reflect what the figure depicts, such as a location map or habitat types on the property. The numbers and titles of figures and tables may be listed under a separate List of Figures (or Tables); see Table of Contents for example. Compass direction and mileage scale are advisable on all figures which illustrate geographical features.

TITLE AND SIGNATURE PAGES

The following two pages are examples of the Title Page and Signature Page that are required for each plan.

E X A M P L E (Title Page)

City of Carlsbad
(and other management entity as needed)

DRAFT PRESERVE MANAGEMENT PLAN

for

(NAME OF AREA)

Month, Year

E X A M P L E (Signature Page)

(NAME OF AREA) FINAL DRAFT MANAGEMENT PLAN

Prepared by: Name
Address
Phone

Approved by:

_____
Preserve Steward Date

_____
City Date

_____
CDFG Date

_____
USFWS Date

TABLE OF CONTENTS

The Table of Contents of each land management plan must follow the same format as shown on page i of this document. All pages, starting with Chapter I, Introduction, are numbered consecutively, including figures, tables, and maps. Appendices have their own separate page numbers such as A-1, A-2,..., B-1, B- 2,....

TABLE OF CONTENTS

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ACKNOWLEDGEMENTS (Optional)	X
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LIST OF TABLES	X
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B. Preserve Area History	X
C. Purpose of This Management Plan	X
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A. Geographical Setting	X
B. Preserve Area Boundaries, Adjacent Land Use, and Adjacent Preserve Areas	X
C. Geology, Soils, Climate, Hydrology	X
D. Cultural Features	X
1. Archaeology	X
2. Historic Land Use	X
3. Existing Structures	X
III. HABITAT AND SPECIES DESCRIPTION	X
A. Vegetation Communities, Habitats, and Plant Species	X
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C. Species Covered by the HMP (Including all Endangered, Threatened, and Rare Species)	X
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V. OPERATIONS AND MAINTENANCE SUMMARY	X
A. Operations and Maintenance ASMDs to Implement Plan (if not provided under IV.B.1., C.1, or D.1 above)	X
B. Existing Staff and Additional Personnel Needs Summary	X
C. Management, Monitoring, Operations and Maintenance Budget Summary	X
VI. REFERENCES	X

APPENDICES: As necessary to list:
1) Preserve Area Descriptions
2) Animal and Plant Species Inventories
3) Soil Surveys
4) Climatic Information
5) Etc.

ACKNOWLEDGEMENTS

(Optional)

The author(s) may wish to thank groups or individuals who helped prepare the plan or provided necessary information or guidance.

LIST OF FIGURES

If appropriate, a list of figures (which includes all maps, drawings, or charts) may be provided here along with their page numbers.

LIST OF TABLES

If appropriate, a list of any tables provided in the management plan may be provided here along with their page numbers.

I. INTRODUCTION

A. Purpose for Inclusion of the Preserve Area in the HMP

Describe the primary purpose for which this was included in the HMP and OSMP. Additional purposes are also stated here. Be brief, but provide summary information about the management objectives presented later within the plan. Describe the resources protected by this preserve area in very general terms.

B. Preserve Area History (This section may be combined with Section A if the description is straightforward)

Describe the circumstances leading to dedication of this preserve area which might include set-aside for mitigation, acquisition in response to local or regional development pressure, environmental concerns, inholding consolidation, or other issues, and list any local or regional groups which had influence in promoting this dedication.

If relevant, give the acquisition transaction date(s) and the total number of acres acquired.

C. Purpose of This Management Plan

The following language is required to be stated in the plan to clearly delineate the City's purposes in preparing such plans:

1) The plan guides management of habitats, species, and programs described herein to achieve the City's obligation to protect and enhance wildlife values under their HMP and Implementing Agreement.

2) The plan serves as a guide for appropriate public uses of the preserve area.

3) The plan serves as a descriptive inventory of fish, wildlife and native plant habitats, which occur on or use this preserve area.

4) The plan provides an overview of the preserve area's operation and maintenance, and personnel requirements to implement management goals. It serves as a budget planning aid for preserve area budget preparation.

II. PRESERVE AREA DESCRIPTION

This chapter provides the most current information available to describe the geographical, physical, and cultural site characteristics and features to promote good management of the area. Some of the following subsections may be combined if the subjects below are addressed and information is presented in a logical sequence.

A. Geographical Setting

Describe preserve area location clearly, giving written instructions on how it can be reached by land transportation, and provide a regional map (Map 1) which identifies this property's location in the City-wide preserve system. Local crossroads must be shown, as well as compass direction (north), and mileage scale. This is an overview map which gives the unfamiliar reader a regional perspective for locating the property. The map must be computer-generated using GIS data. The map size must be 8-1/2 x 11 inches.

B. Preserve Area Boundaries, Adjacent Land Use, and Adjacent Preserve Areas

Provide a property map (Map 2) with boundaries distinctly outlined to place it in perspective with adjacent lands. The map must contain sufficient detail to provide information on entrances to and any open roads within the site. Compass direction and mileage scale must be given on the map. Size must be 8-1/2 x 11 inches.

Give a brief description of adjacent land use and prior land use on the preserve area, if known. Provide documentation of any easements issued to others within or across the preserve area. A map of easements must be provided as well (Map 3). The map size must be 8-1/2 x 11 inches.

List all adjacent or nearby preserve areas (within the same management unit as defined by the OSMP) and the preserve manager contact information. List the habitat types and management issues in common with adjacent preserves and opportunities for coordinated management between preserve areas within the management unit.

C. Geology, Soils, Climate and Hydrology

These subjects may be combined into one subheading or separated for individual discussion, depending upon how much information is provided. Provide an overall assessment of geological, edaphic, climatic and hydrologic factors which *will influence management objectives*. You only need to provide information which is pertinent to management of the area.

Geological information which describes how the area evolved or how it relates to the surrounding geological formations can be useful in describing the overall area (eg., alluvial valleys, volcanic outcrops, floodplains).

Soil survey information, obtained from the City of Carlsbad in GIS format, may influence species distributions, water regimes and agricultural activities. Soil types which have significant impacts on management are discussed here. A soils map may be helpful in making management decisions if soil types are important or complex. A detailed description is not necessary unless it relates to management.

A discussion of local climate includes useful information such as seasonal norms for high and low temperatures, seasonal average precipitation, growing season, and any other climatic factors, which influence the area, or should be considered in managing the preserve area.

On some preserve areas, hydrological and water right information will be extremely important. Describe all known surface and subsurface water sources and their seasonal influences on management of the area. If there are wells on the area, the depth to groundwater and pumping rate will be provided, if known. Provide information regarding any surface water rights, (i.e. riparian, pre-1914, adjudicated, appropriative) and current points of diversion. For appropriative rights, include State Water Resources

Control Board application permit and license numbers and identify whether use is for direct diversion, storage or both. Also, identify any contracts, MOU's or other agreements related to water use.

D. Cultural Features

Describe any known archeological sites without providing their specific locations on the property, and include a summary of the results of any site surveys/inventories, including who conducted them. An initial assessment of the impacts of management must be given for such sites. Check within the CEQA Guidelines for appropriate action in dealing with suspected or existing archeological sites. At the minimum, state that an archeological survey will be initiated where appropriate, prior to any management activity.

Describe all existing structures including roads, levees, fencing, and buildings, and their intended future use on the area. If such structures are likely to be considered "historical resources" of the state pursuant to Executive Order W-26-92 and to historic resources preservation laws, the preserve management plan must include measures to preserve and maintain these resources to the extent prudent and feasible within existing budget and personnel resources.

III. HABITAT AND SPECIES DESCRIPTION

This chapter provides a descriptive inventory of habitats and species which are located on or use the preserve area. General ecological information necessary for proper management of habitats is presented in this section.

A. Vegetation Communities, Habitats and Plant Species

Describe each major native plant community or habitat which occurs on the preserve area. Include a vegetation or habitat map. Be sure to name any special natural communities, which are listed in the Natural Diversity Database (NDDB). General habitat descriptions will follow the "List of California Terrestrial Natural Communities" based on the classification described in A Manual of California Vegetation (Sawyer-Keeler & Wolf 1995). Vegetation communities must also be crosswalked to the Holland vegetation classification to be consistent with MHCP habitat types. When using the NDDB classification system include at least two floristic vegetation series or more if you can.

Provide an inventory (list), if available, of native plant species which are known or likely to occur on the preserve area. If not available, include a statement that at the earliest feasible opportunity, and before natural habitats are manipulated, inventories will be conducted to determine that no rare, threatened or endangered plant or special plant species or communities will be negatively impacted by management activities. You may want to include non-native vegetation as well. Generally, the list can be placed in an appendix, but major species affected by or targeted for management must be mentioned within the text. An overview of their habitat and management requirements is presented here. Use proper nomenclature for preparing the list of species which generally includes scientific name (the common name is also included).

B. Animal Species

Provide an inventory (list), if available, of animals (including fish, reptiles, amphibians, birds, and mammals) which are known to inhabit or seasonally use this property. Lists can be placed in an appendix, but species affected by or designated for particular management objectives are mentioned here. An overview of their habitat and management requirements is presented here. If inventories have not yet been completed, provide a list of species which could potentially inhabit or use the area based on personal field experience and other available models (e.g., the CDFG California Wildlife Habitat Relationships model). Make a statement to the effect that at the earliest feasible opportunity, and before natural habitats are manipulated, inventories will be conducted to determine that no animal T&E species or special species will be negatively impacted by management activities.

C. Species Covered by the HMP (including all Endangered, Threatened and Rare Species)

List all state and federal threatened or endangered, rare, or otherwise covered plants and animals which use the preserve area and briefly describe their ecological requirements (see Exhibit A at the end of this guide for a complete list of covered species and their located referenced in the MHCP; address all species on lists 1-3 that use the preserve area; list 4 includes species not currently covered by the HCP). Covered species are species addressed in the HMP and Implementing Agreement and are covered by incidental take permits from the wildlife agencies. Mammals, birds, plants, invertebrates, fish, reptiles, and amphibians require separate headings if combined into one list.

IV. MANAGEMENT GOALS

Chapter IV defines the terms used and provides management direction for management actions on this preserve area. The goals and tasks stated here will guide all management decisions until the plan is revised and updated.

The following terms and definitions (in boldface) are presented at the beginning of this chapter to familiarize the reader with terminology used in the plan. *Include definitions for only those terms you use in the plan.*

A. Definitions of Terms Used in This Plan

1. Elements: An element refers to any biological unit, public use activity, or facility maintenance program as defined below for which goals have been prepared and presented within this plan.

Since the "elements" are the basis of the plan, be sure to discuss what types of elements are necessary with other preserve managers, the preserve steward, and wildlife agency staff that are familiar with the area and/or resources. We do not want to have so many elements, that goals become redundant, but we do want to discuss all elements to be affected by management on the preserve area.

2. Biological Elements: These elements consist of species, habitats, or communities for which specific management goals have been developed within the plan.

With the exception of covered species, biological elements are always defined in terms of ***habitat*** *management programs, since the overall management objectives are ecosystem or multi-species oriented.* When appropriate, covered species management goals should also be contained within the context of a habitat management program. In some cases, this may not be possible and single species management programs should then be considered as separate biological elements.

Within each defined biological element, biological and public use management goals is specified and described. Criteria used to identify biological elements may include but are not limited to the following:

a.) Protection of the element is required by the conditions set forth in the MHCP Conservation Analysis, the Carlsbad HMP, and the Implementing Agreement.

b.) Any covered species known or suspected to occur on or to use the property <u>must</u> be specified within another element or as a separate biological element.

c.) Essential habitat for one or more covered species must be specified as a biological element. An example is vernal pool habitat upon which numerous state-listed plant species depend.

d.) Manipulated habitats which are intensively managed for fish and wildlife values must be specified as biological elements. An example is Coastal and Valley Freshwater Marsh which is created and/or enhanced for migratory waterfowl and other associated wetland species.

e.) Restoration efforts which may restore an extirpated species or habitat, or maintenance efforts which may avoid the threat of extirpation. An example is Great Valley Cottonwood Riparian (NDDB type).

3. Public Use Elements: Public use elements are any recreational, scientific, or other use activity appropriate to and compatible with the purposes for which this preserve area is managed.

When drafting appropriate public use activities, think about potential impacts to the area's resources. The proposed public use should be related to wildlife or wild lands. In addition, a reasonable and defensible correlation between the proposed public use and how it relates to the primary Carldsbad HMP land management policies must be articulated. If reasonable public use is justified, it may also be tempered with limits on actual number of public involved. Provide a map (if applicable) of trail systems or

recreational use zones identified through the management plan process, the map size must be 8-1/2 x 11 inches.

Criteria used to characterize such public use elements include but are not limited to:

a) Use is authorized or considered an allowable use by the MHCP and/or HMP (e.g., uses such as hiking, bird watching, and interpretive programs).

b) Use is compatible with fish and wildlife requirements in the area if properly conducted (e.g., scientific research programs).

c) Historical uses which may be restricted seasonally or year-round under this plan due to incompatibility with biological element needs (e.g., fishing or interpretive programs).

4. **Facility Maintenance Element: This is a general-purpose element describing the maintenance and administrative program, which helps, maintain orderly and beneficial management of the area.**

An example of a facility maintenance element is provided later in this chapter.

5. **Fire Management Element:**

This includes language regarding the MHCP and HMP fire management guidelines. This element will address (as needed) issues such as coordination with local regional CDF units on wildfire suppression, staging fire fighting equipment, access points, identifying safety hazard areas to fire fighting personnel, post fire activities (e.g. restoration) and preventive fuel or fire breaks, specifically in sensitive habitat areas. A statement is needed to address they City's vegetation clearance ordinances and various appropriate clearing methods (e.g. mowing, discing, blading, managed goat herds, etc.). In some cases, a separate prescription burn plan may be appropriate, described briefly under a "Biological Element" and the plan attached as an addendum. Close coordination with the City and wildlife agencies will be required to develop this element.

6. **Biological Goals: A biological goal is the statement of intended long-range results of management based upon the feasibility of maintaining, enhancing or restoring species populations and/or habitat.**

Biological goals may be, for example, restoration of riparian habitat to its predisturbed state or maintaining a particular habitat for optimal deer herd size.

7. **Public Use Goals: A public use goal is the statement of the desired type and level of public use compatible with the biological element goals previously specified within the plan.**

Public use goals could be to educate the public about rare species or special habitats on the preserve area.

8. **Area Specific Management Directives (ASMDs): ASMDs are the individual projects or work elements that implement the goal and are useful in planning operation and maintenance budgets. ASMDs are prioritized and described in detail in the annual work plans for each preserve area.**

Examples of ASMDs are:

a.) to provide nesting habitat for a certain species over a given period of time;
b.) to revegetate a former riparian community;
c.) to build ponds and/or levees to provide wintering waterfowl areas;
d.) to maintain roads for public access. grading and graveling roads;

e.) specific maintenance on existing levees;
f.) description of types of revegetation efforts;
g.) specific maintenance tasks on buildings.

Chapter IV, Part B is the most important section, so read thoroughly:

B. Biological Elements: Goals

Section B must have a subsection for every biological element described. Within each subsection, provide:

1. The name and general description of biological element;
2. General long-range goals;
3. Relevant specific permit conditions identified in the HMP and Implementing Agreement;
4. Management or operations and maintenance ASMDs required to complete each goal (this information is optional).

A description will accompany each *goal*, which provides management information and direction on how to meet or exceed the goal. *ASMDs* will be described sufficiently to provide information on how restoration, maintenance, or enhancement of this particular element will be accomplished. If *O&M ASMDs* are listed in a summary table, these must provide specific detail on how goals will be met by task performance.

After the goals are characterized, briefly describe *any internal or external management constraints*, which may affect meeting those goals. Some examples are:

- Environmental factors such as the influence of local water availability (either surface or subsurface waters); the introduction or spread of non-native species; presence of T&E species; flood; drought; erosion; air pollution; hazardous waste materials;

- Legal, political or social factors including federal or state laws, policies, or regulations which influence or mandate certain types of management; special permitting requirements (eg., ACOE 404, T&E species, archeological sites); City ordinances (eg., nuisance abatement); MOUs or other special agreements with private or public entities; water or mineral rights for the area;

- Financial factors such as the source of funding to be used for operation and maintenance, personnel requirements, and overall management of the area (fund source may dictate management direction).

Discuss potential *environmental impacts* from management decisions and avoidance or mitigation measures which will be employed, if necessary, to avoid or significantly reduce such impacts. Demonstrate that potential impacts are temporary or that the overall effect of the action is a net improvement/enhancement in habitat value in the preserve area. It is the intent of the Carlsbad HMP and OSMP implementation not to undertake projects that adversely impact a covered species or their habitats. Therefore, no impacts will be allowed that reduce overall habitat quality in the preserve area and thus reduce the ability of the City to meet the permit conditions of the HMP and Implementing Agreement.

The following is a biological element example with goals and tasks:

Biological Element: Coastal and Valley Freshwater Marsh

Maintain optimum winter habitat for migratory waterfowl by on-going marsh management techniques to

optimize winter food availability for migratory species.

Goal: Continue with established flooding and drawdown timetable; maintain mode of dynamic experimental vernal/summer seasonal wetland management.

Goal: Continue mechanical manipulation of wetland vegetation during summer dry period (when covered species will not be impacted) to maintain adequate open water during flooded period.

ASMD 1: Disc 100 acres of tules annually to maintain marsh in optimal successional stage.
ASMD 2: Repair leaking levees to prevent premature drawdowns.
ASMD 3: Build 4 additional nesting islands in specified units.
ASMD 4: Clean specified water supply ditches.

For each ASMD, describe how the action will be implemented, what the desired result will be (quantitatively if possible), and how the response will be monitored, recorded, and *analyzed within the adaptive management context.* Describe the adaptive management adjustments that may be anticipated if the ASMD does not achieve the desired result.

If you wish to discuss the goals for each element in a narrative format in order to provide more detail or to clarify certain management issues, be as succinct as possible while providing sufficient information to meet MHCP and HMP monitoring and management requirements. Do not forget to discuss management constraints, environmental impacts, and mitigation measures (if applicable).

C. Public Use Elements: Goals

This Section is prepared in the same manner as Section B. It includes a narrative describing the program for each public use element, its goals and ASMDs (optional), management constraints, and environmental impacts and potential mitigation measures.

If an interpretive services program is to be conducted on the preserve area (such as providing hiking trails, or bird tours), describe in sufficient detail the type of program(s) to be implemented along with any associated goals and potential impacts associated with them.

As in previous sections, environmental impacts will be discussed for each public use program and, if appropriate, mitigation measures to offset such impacts will be described in detail. *If any public use program impacts covered species*, those impacts must be discussed briefly within the public use element and references must be made to the provisions in the MHCP and HMP indicating the impact is associated with an allowable use. All potential impacts, even from allowable public uses, shall be avoided, minimized, and mitigated to the extent possible given preserve management priorities and budget constraints.

Some examples of public use elements are:

1. General public recreation (including bird watching, plant identification, other self-guided activities)
2. Fishing program
3. Scientific research, surveys or monitoring (by outside groups)
4. Trails, blinds, boardwalks or viewing platforms
5. Interpretive centers, educational kiosks

D. Facility Maintenance Element: Goals

This Section describes the physical facility and grounds maintenance program, which includes the administration necessary to maintain orderly and beneficial management of the preserve area

The following examples of goals and ASMDs are paraphrased and excerpted from the CDFG Mendota land management plan:

Properly administer overall management of the property by:

Goal: Maintain accurate business records on expenditures, staff, maintenance, and other administrative duties.

Goal: Maintain regular office hours in order to respond to public requests for information in a timely manner and otherwise conduct business in a normal manner.

Goal: Maintain all equipment, vehicles, facilities, residences, office structures, shop and associated buildings, fuel tanks, and any related items in optimum working condition to maximize efficient use of operating expenses allocated to this area.

ASMD 1: Regular inspection and servicing of all heavy equipment and vehicles.

ASMD 2: Regular inspection and repair of all buildings, residences and structures. This may include items such as plumbing, electrical, painting, fixtures, and any other features necessary to protect health and safety of staff and visitors to the property.

ASMD 3: Regular inspection and maintenance of fuel tanks to comply with federal and state laws.

As with the other elements, you may list ASMDs here or in the next chapter. Do not forget to outline potential environmental impacts and mitigation, if appropriate, associated with facility maintenance goals and objectives. Briefly describe potential impacts to covered species. All potential impacts, even from necessary operations and maintenance, shall be avoided, minimized, and mitigated to the extent possible, given preserve management priorities and budget constraints.

E. MHCP Biological Monitoring Element

This Section is prepared in the same manner as Section B. It includes a narrative describing the program for each monitoring element, its goals and ASMDs, the optimal monitoring season for special or targeted species/habitats and any known constraints, limitations or methodologies. This section includes all standard or required protocols specified in the MHCP and/or by the wildlife agencies and discuss the relevance and consistency of the MHCP and HMP to the monitoring activities implemented in this preserve area. Key sections, guidelines, and directives within the MHCP and HMP plans relating to monitoring are reiterated here. Regional coordination of monitoring data collection and analysis, obligations for monitoring of "preserve design," or of HMP compliance will also be discussed. Clearly understand and identify the preserve-level and MHCP-level monitoring that is required for this preserve area. Coordinate with the preserve steward and wildlife agencies to clarify the role of this preserve area in subregional and regional monitoring efforts.

V. OPERATIONS AND MAINTENANCE SUMMARY

This chapter contains information in a summary format, which will guide budget preparation and work plans for the property. Use of the Property Analysis Record (PAR) software is preferred for accurate budget preparation and updating.

A. Operations and Maintenance

ASMDs to Implement Plan. If you have not already listed them in the previous section, use this section to itemize O&M ASMDs required to fulfill goals for previously described biological, public use, and facilities maintenance elements. Give brief descriptions of specific operations and maintenance tasks, which are necessary to implement the goals of this plan. This will help provide information necessary for annual budget preparation for management of the property.

B. Existing Staff and Additional Personnel Needs Summary

Summarize the number of existing staff employed at or who spend a percentage of their work schedule performing tasks on the preserve area, and any additional requirements for personnel, both full time and temporary. Briefly outline the justifications for personnel requested without going into specific task descriptions. Provide the position classifications required to fully implement the plan as written. This may be in narrative or table format.

C. Management, Monitoring, Operations and Maintenance Budget Summary

This section is provided to summarize all estimated management, monitoring, operations and maintenance costs associated with management of the preserve area. This summary would provide more specific information required for annual budget preparation.

The following table is provided as the preferred format for such a summary (preferably derived from PAR-based estimate):

TABLE 1. OPERATIONS AND MAINTENANCE SUMMARY OPTIONS

Option 1:
Summary Table: Costs summarized by goal.

Goals	Priority *	Labor (in PYs)	Personnel Class	On-Going Cost $	One-Time Cost $
1. Preserve Covered species	1	0.17	WHS I	$10,000	$5,000
A. Conduct Surveys					
B. Avoid Impacts					
C. Etc.					
Continue until all goals are summarized.					
TOTAL:		**Total No.**		**$ Total**	**$ Total**

*Define meaning of priorities.

Option 2:
Summary Table: Costs summarized by goals and ASMDs:

Goals and ASMDs	Priority *	Labor (in PYs)	Personnel Class	On-Going Cost $	One-Time Cost $
1. Preserve Covered species	1	0.17	WHS I		
A. Conduct Surveys				$1,000	$5,000
B. Avoid Impacts				$9,000	
C. Etc.					
Continue until all goals are summarized					
TOTAL		**Total No.**		**$ Total**	**$ Total**

*Define meaning of priorities.

VI. REFERENCES

Use standard scientific reference nomenclature to cite authors and their published research. Be sure to add references when using information from other sources.

Example:
Department of Fish and Game. 1999. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. Sacramento.

Meyers, K.E. and W.F. Laudenslayer, Jr., Eds. 1988. A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection. Sacramento.

APPENDICES

A title page that uniquely identifies it (e.g., Appendix A - Legal Description of Property) precedes all appendices. All pages within this appendix are numbered consecutively: A-1, A-2, A-3...

Use Appendices as necessary to list items:

1) Property Descriptions
2) Animal and Plant species inventories
3) Soil Surveys
4) Climatic Information
5) Etc.

EXHIBIT A

List 1: Species Proposed for Coverage under the Carlsbad Subarea Plan

Scientific Name	Common Name	Status*	MHCP Subregional Plan Vol. II Page Ref.
Plants			
Brodiaea filifolia	Thread-leaved brodiaea	FT/CE/NE	4-37
Chorizanthe orcuttiana	Orcutt's spineflower	FE/CE/NE	4-56
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	FSC	4-74
Euphorbia misera	Cliff spurge	None	4-101
Hazardia orcuttii	Orcutt's hazardia	FSC/NE	4-111
Quercus dumosa	Nuttall's scrub oak	FSC	4-159
Invertebrates			
Panoquina errans	Salt marsh skipper	FSC	4-202
Euphyes vestris harbisoni	Harbison's Dun Skipper	FSC/NE	4-196
Birds			
Pelecanus occidentalis californicus	California brown pelican	FE/SE	4-251
Plegadis chihi	White-faced ibis	FSC/SSC	4-256
Accipiter cooperii	Cooper's hawk	SSC	4-264
Pandion haliaetus	Osprey	SSC	4-269
Falco peregrinus anatum	American peregrine falcon	CE	4-280
Rallus longirostris levipes	Light-footed clapper rail	FE/CE/FP	4-285
Charadrius alexandrinus nivosus	Western snowy plover	FT/SSC	4-291
Sterna elegans	Elegant tern	FSC/SSC	4-299
Sterna antillarum browni	California least tern	FE/CE/FP	4-304
Empidonax traillii extimus	Southwestern willow flycatcher	FE/CE	4-314
Vireo bellii pusillus	Least Bell's vireo	FE/CE	4-321
Polioptila californica californica	Coastal California gnatcatcher	FT/SSC	4-333
Icteria virens	Yellow-breasted chat	SSC	4-360
Aimophila ruficeps canescens	California rufous-crowned sparrow	FSC/SSC	4-366
Passerculus sandwichensis beldingi	Belding's savannah sparrow	FSC/CE	4-371
Passerculus sanwichensis rostratus	Large-billed savannah sparrow	FSC/SSC	4-377
Reptiles			
Cnemidophorus hyperythrus beldingi	Orange-throated whiptail	SSC	4-245

* See the "Key to Legal and Management Status" that follows List 4.

List 2: Species Coverage Contingent on Other MHCP Subarea Plans being Permitted

Scientific Name	Common Name	Status*	MHCP Subregional Plan Vol. II Page Ref.
Plants			
Acanthomintha ilicifolia	San Diego thornmint **	FT/CE/NE	4-9
Ambrosia pumila	San Diego ambrosia	FE/NE	4-16
Ceanothus verrucosus	Wart-stemmed ceanothus **	FSC	4-50
Dudleya viscida	Sticky dudleya	FSC	4-89
Ferocactus viridescens	San Diego barrel cactus	FSC	4-106
Quercus engelmannii	Engelmann oak	None	4-165

* See the "Key to Legal and Management Status" that follows List 4.
** Coverage for this species is also contingent on funding for management of conserved areas.

List 3: Species Coverage Contingent on Funding for Management of Conserved Areas

Scientific Name	Common Name	Status*	MHCP Subregional Plan Vol. II Page Ref.
Plants			
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/NE	4-26
Baccharis vanessae	Encinitas baccharis	FT/CE/NE	4-32
Comarostaphylis diversifolia ssp diverifolia	Summer holly	FSC	4-63
Corethrogyne filaginifolia var. *linifolia*	Del Mar sand aster	None	4-68
Eryngium aristulatum var. *parishii*	San Diego button-celery **	FE/CE/NE	4-94
Iva Hayesiana	San Diego marsh elder ***	FSC	4-116
Myosurus minimus ssp. Apus	Little mousetail **	FSC/NE	4-133
Navarretia fossalis	Spreading navarretia **	FT/NE	4-140
Orcuttia californica	California Orcutt grass **	FE/CE/NE	4-147
Pinus torreyana ssp. *torreyana*	Torrey pine	FSC	4-154
Invertebrates			
Streptocephalus woottoni	Riverside fairy shrimp **	FE/NE	4-178
Branchinecta sandiegonensis	San Diego fairy shrimp **	FE/NE	4-184

* See the "Key to Legal and Management Status" that follows List 4.
** Coverage for this species is also contingent on the City of Carlsbad receiving legal control over the protection, management, and monitoring of the vernal pools adjacent to the Poinsettia Train Station in Carlsbad.
*** Coverage for this species is also contingent on other MHCP subarea plans being permitted.

List 4: MHCP Species Not Covered under the Carlsbad Subarea Plan

Scientific Name	Common Name	Status*	MHCP Subregional Plan Vol. II Page Ref.
Plants			
Dudleya blochmaniae ssp. *brevifolia*	Short-leaved dudleya	CE/NE	4-80
Lotus nuttallianus	Nuttall's lotus	FSC/NE	4-122
Tetracoccus dioicus	Parry's Tetracoccus	FSC	4-170
Invertebrates			
Euphydryas editha quino	Quino checkerspot butterfly	FE	4-211
Reptiles and Amphibians			
Scaphiopus [Spea] hammondii	Western spadefoot toad	SSC	4-215
Bufo californicus	Arroyo toad	FE/SSC	4-222
Clemmys marmorata pallida	Southwestern pond turtle	FSC/SSC	4-233
Phrynosoma coronatum blainvillei	San Diego horned lizard	FSC/SSC	4-238
Birds			
Aquila chrysaetos	Golden eagle	BEPA/SSC	4-274
Campylorhynchus brunneicapillus cousei	Coastal cactus wren	FSC/SSC/NE	4-328
Sialia mexicana	Western bluebird	None	4-355
Amphispiza belli belli	Bell's sage sparrow	FSC/SSC	4-380
Mammals			
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST	4-401
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/NE	4-407
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	FSC/SSC	4-416
Lepus californicus bennetti	San Diego black-tailed jackrabbit	FSC/SSC	4-421
Felis concolor	Mountain lion	SPM	4-425
Odocoileus hemionus fuliginata	Southern mule deer	RGS	4-431

Key to Legal and Management Status of Species in Lists 1 - 4

FE.....Federally Endangered
FT.....Federally Threatened
BEPA.....Bald Eagle Protection Act
FSC.....Federal Species of Concern (former Category 2 Candidate)
CE.....State Endangered
CT.....State Threatened
SSC.....State Species of Special Concern
SPM.....State Special Protected Mammal
RGS .....State Regulated Game Species
None .....No Federal, State, or City status
NE.....Narrow Endemic Species in the MHCP