

**Table 2E - Number of Species Considered for Conservation under the MSHCP  
since 1999**

Species Category <sup>1</sup>	Species Initially Considered for Conservation <sup>2</sup>	Species Considered for Conservation in "1999 Draft MSHCP Proposal" <sup>3</sup>	Species Considered for Conservation in "March 2002 Admin Draft MSHCP Plan" <sup>4</sup>	MSHCP Covered Species Adequately Conserved (August 2002) <sup>5</sup>
Other Amphibians	3	3	2	2
Listed/Proposed Reptiles	1	1	1	1
Other Reptiles	20	19	11	9
Listed/Proposed Birds	11	9	8	8
Other Birds	44	45	37	37
Listed/Proposed Mammals	3	2	2	2
Other Mammals	30	11	12	13
Listed/Proposed Plants	17	13	13	13
Other Plants	100	53	46	49

- Notes:
- <sup>1</sup> "Listed and Proposed" species includes federally and State threatened and endangered species as well as Federal and State proposed threatened or endangered species. "Other" species includes Federal Species of Concern, California Species of Special Concern, California Rare species, California Fully Protected Species, and species with no special status at this time.
  - <sup>2</sup> *March 1999 FWS Tables 1 and 2*: The list of species initially considered for conservation by the Wildlife Agencies in collaboration with the MSHCP Advisory Committee. This list was documented by USFWS staff in Tables 1 and 2 prepared in March 1999. Tables 1 and 2 are included in the Appendix to the August 9, 1999 "Draft MSHCP Proposal" (DUDEK, 1999) on file with the County of Riverside.
  - <sup>3</sup> *August 9, 1999, Draft MSHCP Proposal*: This list of species was developed by DUDEK from the list of species initially considered for conservation based on preliminary review of the MSHCP database. This list is described in the August 9, 1999 "Draft MSHCP Proposal" (DUDEK, 1999) on file with the County of Riverside.
  - <sup>4</sup> *March 7, 2002, Administrative Draft MSHCP Plan*: This list of species was developed by DUDEK as a refinement of the list of species included in the August 9, 1999 "Draft MSHCP Proposal." The refinements were based on input from the Wildlife Agencies and a variety of stakeholders as well as additional research conducted by DUDEK. In general, species previously considered for conservation were eliminated from the list because information needed to proceed with conservation planning for the species was determined to be unavailable.

## 2.2.2 Conceptual Conservation

### Initial Concept

Early in the MSHCP development phase, an initial reserve concept was developed to assist the MSHCP Advisory Committee in decisions to proceed with conservation planning efforts. This generalized Conceptual Conservation Scenario was developed based on the existing data and literature, habitat assessment workshops, species occurrence information, coastal sage scrub habitat quality modeling, existing and planned land uses, and general conservation biology principles summarized in the NCCP reserve design tenets. The Conceptual Conservation Scenario was intended

to address the life history requirements of as many species as possible on the species list that was developed by the MSHCP Advisory Committee (Table 2E).

A key objective of the Conceptual Conservation Scenario was to develop a rough estimate of the number of acres needed to conserve the species on the species list developed by the Wildlife Agencies. To the extent possible, existing reserves and areas with multiple species and habitat resources (i.e., “hot spots”) were incorporated to design an efficient reserve. Core Areas were identified, including areas in both existing public/quasi-public lands and new areas.

Potential habitat linkages connecting the core habitat areas also were identified. Consideration of the species anticipated to utilize the linkages helped determine if the linkage should be designed as a landscape linkage containing biological features and resources for permanent residence, as a movement corridor primarily intended to convey larger wildlife, or both. The San Jacinto River is an example of a landscape linkage that is a core area for narrow endemic plant species but also serves as a movement corridor across the central portion of the proposed Plan Area for species such as bobcat (*Lynx rufus*). These narrow endemic plant species are dependent on the river’s hydrological processes to maintain the appropriate soil and habitat features and a mechanism for dispersal. An example of a landscape linkage constrained by existing land use patterns is the upland connection between core habitat areas in the Lake Skinner/Diamond Valley Lake area and the Estelle Mountains/Lake Mathews Reserve area. Patches of coastal sage scrub exist in this area that provide habitat for the coastal California gnatcatcher; however, existing conditions do not provide a continuous landscape connection suitable for less mobile species such as small mammals and reptiles. Examples of movement corridors unlikely to provide live-in habitat for most species include undercrossings of I-15 at Indian Canyon and Horseshoe Canyon for coyotes (*Canis latrans*), bobcats, and mountain lions (*Felis concolor*) moving between the Cleveland National Forest and the Estelle Mountains/Lake Mathews Reserve area.

Estimating rough acreages for conservation was an important component of the Conceptual Conservation Scenario. This process involved the following tasks:

- The narrative Conceptual Conservation Scenario was roughly mapped in the form of potential conservation analysis units. This rough map was intersected with the proposed MSHCP vegetation map, and vegetation acreages within each category were calculated using GIS.
- Consistent with the approach described in the *August 9, 1999 Draft MSHCP Proposal*, 100 percent of the areas characterized as developed on the vegetation map and 75 percent of the areas characterized as agriculture on the vegetation map were deleted from the acreage totals.
- Areas developed since the proposed MSHCP vegetation map was prepared (1995) were defined using the Existing Land Use coverage developed in 1999 for the RCIP. The Existing Land Use coverage is based on 1998 aerial photography and 1997 SCAG base data. Acreage estimates were determined for areas that appear to have been developed since the proposed MSHCP vegetation map was prepared, and these acreages were deleted from the overall acreage totals.

- A global 10 percent reduction in total acreage was then assumed based on anticipated new information such as updated information regarding existing development, updated information regarding public/quasi-public lands, and updated information regarding development approvals and Covered Activities.

A rough acreage estimate was derived from the four-step process described above. Then an acreage range was applied under the assumption of various levels of species conservation. The generalized range of conservation acreages in the Conceptual Conservation Scenario totaled 380,000 to 500,000 acres of private and public/quasi-public lands.

### **Informal Gap Analysis**

Based on the Conceptual Conservation Scenario described above, an informal gap analysis was conducted. This informal gap analysis is not to be confused with the formal Gap Analysis Program (GAP) described by Scott, et al. (1993), but is based on the same principles (note use of lowercase for “gap analysis”). The gap analysis identified areas as important for conservation in the Conceptual Conservation Scenario but not currently in public ownership, i.e., there is a lack (“gap”) of protection in these areas. The locations of existing designated open space lands and other public lands were mapped using GIS. The initial analysis was based on the status of land ownership map. Subsequently, a preliminary parcel-based public/quasi-public lands database was developed by County staff and was used for analysis. This database was then compared with a schematic map of the Conceptual Conservation Scenario using GIS to identify the gaps in conservation and where land may need to be acquired to assemble the proposed MSHCP Conservation Area.

The gap analysis identified 153,000 acres needed for conservation that are not currently in public ownership (i.e., the area within the generalized Conceptual Conservation Scenario that currently is unprotected). The gaps in protection include portions of core resource areas, landscape linkages, movement corridors or constrained linkages, and other important localized resource areas such as vernal pool and Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) habitat areas.

This Page Intentionally Left Blank