

A. MSHCP Conservation Area Description



The following sections describe analyses of patch size, shape and edge for the proposed MSHCP Conservation Area.

3.5.1 Methods for Measuring Habitat Patch Size

The proposed MSHCP Conservation Area would be an approximately 500,000-acre network of land that includes approximately 347,000 acres of existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Lands. Portions of Rural/Mountainous areas also may contribute the MSHCP Conservation Area, but they are not within actual Conservation Area boundaries and thus are not formally analyzed here.

MSHCP Conservation Area patch number, size and distribution were analyzed by combining available GIS data, including the vegetation map, existing biological open space within the existing Public/Quasi-Public Lands coverage and a Conceptual Reserve Design that was used for the conservation analysis. (It should be noted that the Conceptual Reserve Design is a conceptual portrayal of the assembled Criteria-based reserve that was necessary to conduct GIS analyses. For this analysis the conceptual MSHCP Conservation Area is approximately 480,000 acres, or about 4% smaller than the proposed 500,000 acre MSHCP Conservation Area. This difference is due to the fact that agricultural and disturbed or developed areas were not considered patches of Habitat for the purposes of this analysis.) The existing Public/Quasi-Public Lands data base was compiled from a variety of sources and includes parcel-level mapping for open space within urban areas and more generalized mapping in the National Forests and generally undeveloped rural areas. Within urban areas, open space boundaries were sufficiently detailed to depict small-scale Development, including local roads, Agriculture and urban development.

One change was made to the MSHCP Conservation Area for the purpose of this analysis. Major roadways (primarily four- and six-lane roadways) were intersected with the MSHCP Conservation Area to depict potentially constrained Habitat connections between open spaces. Major roadways included all Interstate and State highways, except for State Highways 74, 79, 243, and 371 in the National Forests since they are primarily two-lane roads in these areas. It was assumed for this analysis that the typical two-lane paved road or single lane dirt road is not an obstacle to wildlife use and movement. Clearly this assumption is not true for all wildlife species. Ideally, patch size analyses would have to be tailored to the species being considered.

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Discrete Habitat patches were defined by separations between natural Vegetation Communities by major roadways (as described above), urban and disturbed land covers, and intensive agricultural (dairies, intensive row crops and orchards). There was no minimum connection width or length between patches that defined the patches as separate; *i.e.*, all continuous Habitat polygons were considered a single patch.

3.5.2 Results of the Habitat Patch Analysis

The MSHCP Conservation Area, including Additional Reserve Lands and existing Public/Quasi-Public Lands, is composed of approximately 575 patches of intact vegetation. The spatial character of the Conservation Area is complex, with a large number of small, spatially disjunct patches and a relatively small number of large connected patches (*Table 13*). (This may seem to be a trivial result, because one could logically assume there would only be a few large Habitat patches without doing the analysis. However, quantifying the distribution of patch sizes is useful, because one could conceive of a MSHCP Conservation Area that is comprised of a large number of small patches and no large patches).

**TABLE 13
NUMBER AND ACREAGE OF NATURAL VEGETATION PATCHES
WITHIN THE MSHCP CONSERVATION AREA**

Size Class Intervals (Acres)	Number of Patches	% of Patches	Number of Acres	% of Acres
<1	189	33%	56	0.01%
1 to 10	187	32%	714	0.2%
11 to 100	116	20%	3,881	0.8%
101 to 1,000	55	10%	21,975	4.6%
1,001 to 10,000	21	4%	79,354	16.5%
> 10,000	7	1%	373,628	77.9%
TOTAL	575	100%	479,608	100%