

SECTION VI ARIZONA'S WILDLIFE LINKAGES



All of the *potential linkage zones* (see *Table 4-1*) identified to date are on the Arizona's Wildlife Linkages map, *Figure 6-1*, along with perennial waters. In the next section, the initial findings for each of the potential linkage zones are given. Revisions will occur as the potential linkage zones become more refined through the linkage design process. Originally, only the potential linkage zones that crossed *fracture zones* (see *Table 4-1*) were included but this has been considerably expanded.

Biologists and managers working in the Sonoran Desert Ecoregion took an additional step in considering landscape connectivity. Region IV of the Arizona Game and Fish Department (AGFD) identified several linkages that are at this time located within *habitat blocks* (see *Table 4-1*). In most cases these are publicly owned desert lowlands between publicly owned desert mountain ranges. Because these lowland areas could be used for roads, bombing ranges, military housing, and other human uses while remaining in public ownership, it is useful to document the connectivity value of these lands before adverse activities are proposed. Because it reflects primarily the contribution of experts in one ecoregion, the blank areas on the map of linkages within habitat blocks reflect a lack of input rather than a lack of connectivity concerns in the rest of the state (*Figure 6-2*). The Arizona Wildlife Linkages Workgroup (AWLW) has begun the process of identifying potential linkage zones within habitat blocks needing protection throughout the rest of the state.

Identifying the importance of all of these areas will alert project proponents and regulatory agencies to wildlife needs within publicly owned lands. As more development and re-alignment of roadways occurs, previously undisturbed areas may become impacted. This approach should enable future projects to avoid significant barriers to wildlife movement. In the long run, being pro-active will be less expensive, and possibly more beneficial to wildlife, than some of the retrofitting projects needed in fracture zones. All of the fracture zones are depicted in *Figure 6-3*.

The *riparian habitat/linkage zones* (see *Table 4-1*) are depicted on *Figure 8-2*. All classifications of waters (*Table 8-1*) are included on *Figure 8-1*.

Potential Linkage Zone Information

The next section is intended to be a summary of the initial findings for the proposed potential linkage zones. While every effort has been made to ensure the accuracy of this information, the AWLW makes no warranty, expressed or implied as to the accuracy and expressly disclaims liability for the accuracy thereof. Several features are noted for each linkage zone. This general information is derived from the Linkage Data Sheets, the Prioritization Matrix and GIS analysis. The Arizona's Wildlife Linkages Map is provided as a transparency in the front of this report for use with the maps included in this section.

In the synopsis of each linkage zone, the ecoregion in which the potential linkage zone is located is given to allow cross-referencing with the Ecoregional Assessment completed by the Nature Conservancy. The ecoregions are depicted in *Figure 3-2* but for the purposes of the workshops the Nature Conservancy's original designation of the Apache Highlands ecoregion was divided into the Apache Highlands and Sky Island ecoregions.

Arizona has 14 main classifications of biotic communities, vegetation types (*Figure 6-4*). The Brown and Lowe (1974) designations of vegetation communities are used to represent the landscape. The percentages of the biotic communities are included for use with the AGFD Comprehensive Wildlife Conservation Strategy (CWCS) that utilizes a threat matrix based on both ecoregion and biotic community. The percentages are derived by GIS analysis from an intersection of the potential linkage zones with the biotic communities' layer.

Species identified as utilizing the potential linkages zone are given. It should be noted that inclusion in this list does not imply that the particular species necessarily resides in the linkage zone. This list

should not be construed as all-inclusive but rather as a first attempt at gathering information.

Land ownership percentages are given in the information for each linkage zone. These were obtained from the intersection of the land ownership layer (*Figure 6-5*) and the potential linkage zones. Tribal lands, USDA Forest Service lands and Department of Defense lands are also displayed in separate maps (*Figure 6-6*, *Figure 6-7* and *Figure 6-8*).

Threats listed on the Data Sheets by workshop participants are included as well as the threats that were tabulated on the Prioritization Matrix. The highway threat is based on the Arizona's Highway System (*Figure 6-9*) with some mention of county and Forest Service roads. Railroad and canal threats are also identified. The hydrology listed is an overview of perennial, ephemeral, and intermittent waters in the potential linkage zones for planning considerations.

Also for planning purposes are included the county or counties in which the potential linkage zones are located based on a map of county boundaries that are included on *Figure 6-9*. The agency and State offices related to the potential linkage zones are also given. These are based on the Arizona Department of Transportation (ADOT) Engineering District boundaries (*Figure 6-10*), ADOT Maintenance boundaries (*Figure 6-11*), ADOT Natural Resources Management Group boundaries (*Figure 6-12*), AGFD Regional boundaries (*Figure 6-13*), Bureau of Land Management (BLM) Districts (*Figure 6-14*), BLM Field Offices (*Figure 6-15*), Congressional Districts (*Figure 6-16*), Council of Governments (*Figure 6-17*), Federal Highway Administration Engineering Districts, (*Figure 6-18*), and Legislative Districts (*Figure 6-19*).

