Title

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Abstract

This project demonstrates full integration of habitat conservation, transportation, and land use planning on a local and multi-jurisdictional level, utilizing best available science and best practices.

The Coalition for Sonoran Desert Protection, an alliance of 38 conservation and community groups, formed in 1998 to protect biodiversity in the Sonoran Desert through Pima County's multi-species habitat conservation planning effort. Pima County, encompassing over 9 million acres of metropolitan Tucson, Arizona and vast rural landscapes, is adjacent to the Mexican border state of Sonora, Mexico. The metropolitan Tucson area is the focus of the planning area, whose population is expected to reach 1 million by the end of 2006. Encompassing Tucson on four sides is federal forest and park lands.

The planning process brought together scientists from state and federal agencies, advocates from NGO's, and local county and municipal officials. A broad group of stakeholders was also convened to produce consensus recommendations to county officials regarding ESA Section 10 compliance. This abstract will outline the steps taken to protect and re-create wildlife linkages utilizing transportation projects through local planning and cooperative creative partnerships.

Methodology in the broad context of protecting biodiversity included a 4-year development, by a science technical team, of a county-wide map identifying and prioritizing biologically-important lands. Categories developed were: Important Riparian Areas, Biological Core Management Areas, Special Species Management Areas, Multiple-Use Management Areas, and Critical Landscape Linkages. As connectivity between reserves was of particular importance to a functional landscape, the linkages category became a focus with its own methodology for implementation.

Critical Landscape Linkages have been defined as, areas that contain potential connectivity corridors for biological resources but also may have now, or in the future, barriers that tend to isolate major conservation areas. The linkage definitions, maps, and land use guidelines have been included in both the draft habitat conservation plan and the county's comprehensive land use plan. The barriers consist of highways, roads, and a federal irrigation (Colorado River) canal.

Methodology to design, implement and construct wildlife connectivity through transportation barriers has been multi-faceted and complex. The Coalition was able to bring attention to the importance of the issue to local officials, adopt the linkages in local public documents, successfully advocate for the adoption of environmentally-sensitive roadway design guidelines, successfully pass voter-approved Open Space Bonds of $174.3 million which includes acquisition of lands within mapped linkages adjacent to roads, and education and cooperation of other road-building agencies. As well, the Coalition Director was involved with state legislation that created a county-wide Regional Transportation Authority to which she was appointed. Through that committee, the Coalition was able to successfully advocate for adoption of a program category for Critical Landscape Linkages that includes $45 million to be expended for wildlife structures. This plan and funding was adopted by county voters in May 2006 as part of a 20-year, $2.1 billion transportation package.

Both the 2004 Open Space Bond acquisitions and the Critical Landscape Linkages funding for wildlife crossing structures are currently being implemented. These programs are being integrated not only with each other, but with multi-jurisdictional land use planning decisions, and on-going research and monitoring.

There is a huge opportunity in future research, which needs to include intensive monitoring of the linkages and their contribution to protection and restoring biodiversity in the Sonoran Desert.

Although this process, begun in 1998, was a direct response to endangered species liability issues county-wide, the scientific and community response has gone far beyond the regulatory compliance. If accepted, the paper will outline in greater detail the technical and biological issues involved in the local process, with particular focus on the challenges faced in successful integration of transportation and conservation planning.