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Title: **Biological Implications of Three Alternative Development Scenarios for 3700 Old Spanish Trail**

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The purpose of this document is to compare three possible development scenarios for 3700 Old Spanish Trail in terms of their likely impacts on wildlife resources in and near this property.

The three scenarios are:

Option A: Thirteen, 3.3-acre home sites.

Option B: Over 20 rental casitas developed on the eastern edge of the property with 3.3 -acre homes on the western portion of the property.

Option C: A minor resort (Bike Ranch) and 7 clustered residences.

PRIMARY ECOLOGICAL VAUES OF THE SITE

The single most important ecological attribute of this site is its value in providing living and movement spaces for wildlife. The low density development of the private lands West of Saguaro National Park including this property provide an effective buffer for the fragile protected habitats in the adjacent National Park. Most if not all of the species found in the western parts of the park are also found in these low density neighborhoods adjacent to the park. The human residents of these neighborhoods benefit from living in close association with nature and the wildlife benefit from access to habitats beyond the park boundaries. Furthermore, by expanding the habitats available to animal species that reside in and near the National Park, these neighborhoods provide genetic connectivity, not just between the National Park and adjacent neighborhoods, but also connectivity to the county-wide network of wildlife envisioned in Pima County's Conservation Lands System (CLS)

With this in mind, this comparison focuses on 2 key questions: How much native habitat is preserved? How well is this undisturbed open space configured to ensure habitat connectivity?

How much undisturbed native habitat is preserved?

Option A: The Buffer Overlay Zoning Ordinance has been a very effective land use strategy for ensuring that the residential lands adjacent to Saguaro National Park provide habitats for wildlife and an ecological buffer between SNP and higher density developments. BOZO requires at least 30% natural open space. While some land owners choose to develop up to 70% of their lands for homes, driveways, horse corrals, stables, and out buildings, many owners preserve substantially more than 30%. Based on development patterns on adjacent lands, it is safe to assume that about 50 percent of this property would remain as natural habitat after development.

Option B: The lots developed as 3.3-acre home sites on the western portion of the property would leave about 50% of the land as undisturbed natural vegetation. However, siting over 20 individual rental casitas along with driveways and utilities on the eastern portion of the property would leave very little opportunities to preserve undisturbed open space for this strip of land.

Option C: This option preserves over 68% of the property as dedicated undisturbed open space that will be platted and cannot be encroached upon in the future. In addition, the Bike Ranch proposal calls for restoring and maintaining additional open space within the building envelope which will bring the total open space on this property to 82%.

How well is this undisturbed open space configured to ensure habitat connectivity?

Option A: It is not possible to predict how 13 individual land owners will choose to configure their homes, driveways, outbuildings, and utility accesses. Will they require driveways and utilities that transect the important riparian habitats associated with Escalante Wash? Will they coordinate to share driveways and utility corridors and thereby minimize habitat disturbances? Based on the land use patterns exhibited on nearby lands, most property owners will independently site their homes, driveways and ancillary buildings and stables. As a result, there is a lot of uncertainty about the interconnectivity of undisturbed open spaces that would remain after the property is fully developed.

Option B: By concentrating a large number of rental casitas along the land adjacent to SNP, this scenario would create a major barrier for wildlife movements between SNP and adjacent neighborhoods.

Option C: This option creates a large, permanently dedicated and interconnected system of undisturbed open spaces plus additional re-vegetated open space within the building envelope. Furthermore it ensures that the major biological linkage associated with Escalante Wash is not only protected from driveway and utility crossings but also is buffered by a large swath of undisturbed upland habitats. It also more than doubles the setback requirements associated with Old Spanish Trail and Escalante Road.

CONCLUSIONS

There are many non-biological issues associated with the development of this property that are not addressed in this assessment. However the ecological consequences of development are especially important on this property because of its proximity to Saguaro National Park and its importance as a biological linkage between the park, adjacent neighborhoods, and with Pima County's Conservation Lands System.

From this biological perspective, Option B is clearly the least desirable scenario for the reasons outlined above.

Options A and C will both result in substantial wildlife habitat protection.

The principal disadvantage of Option A is that it provides little certainty concerning the configuration of lands that are preserved and the extent to which the important riparian corridor might be transected by utilities or driveways.

Option C has several advantages in terms of habitat protection. It protects the greatest amount of open space (68% in platted open space plus an additional 14% re-vegetated within the building envelope); it configures this open space in a pattern that buffers the most important biological linkage between the park, the neighborhood, and Pima County's Conservation Lands System; and it more than doubles the setback requirements between this property and the adjacent national park.