

# **Tortolita East Biological Corridor Proposal**

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Submitted to the Technical Advisory Committee of the  
Sonoran Desert Conservation Plan  
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This proposal reviews available alternatives for a Tortolita East Biological Corridor (TEBC), paying particular attention to the need for a wildlife crossing under Oracle Road.

**Introduction.** Pima County and the Sonoran Desert Conservation Plan have already recognized the need for a biological corridor connecting the Tortolita and the Catalina Mountains. 'Tortolita East Biological Corridor' (TEBC) is the name usually given to this wildlife corridor.

Pima County has filed a petition (File No. 35-105026) with the State Land Department under the Arizona Preserve Initiative to reclassify 3,113 acres for a TEBC. This petition was submitted in July 1999, amended in April 2000, and is still pending as of this writing.

The SDCP mentions expanding Catalina State Park, and goes on to say:

"The central purpose of the proposed expansion is to facilitate the establishment of a biological corridor that would link the Coronado National Forest, the Sutherland Basin, and Catalina State Park to the Tortolita East Biological Corridor (TEBC) and the Tortolita Mountains. The proposed biological corridor would allow the natural movement patterns of the wildlife in the area to continue, which would help protect the genetic health of these species by keeping them from becoming isolated in a fragmented habitat area." [SDCP Mountain Parks Element, August 2000, Chapter VII on the Tortolita Fan Subarea.]

The recent "Report of Independent Peer Reviewers: Sonoran Desert Conservation Plan" by Reed Noss and Laura Hood Watchman states in recommendation number 7:

"In general, give more attention to the effects of roads in the Plan. Roads are recognized by conservation biologists as a chief threat to many sensitive animals and to the general integrity of ecosystems. The Plan currently recommends maintaining certain percentages of vegetation cover in proximity to roads, which might be advantageous for some species (e.g., birds) but dangerous for others (e.g., large mammals, in that studies have shown that dense vegetation close to roads leads to increased collisions because of decreased visibility). Effective wildlife crossings at key points on high-volume roads should be recommended, important roadless areas (and areas of low road density) should be identified, and standards for minimizing road-building in high-value habitats should be set."

For Oracle Road, between Rancho Vistoso Blvd and Wilds Rd in particular, a local wildlife rehabilitator (Karen Radcliffe) has provided the number of deer injured attempting to cross in the past five years as 59. The numbers show that Oracle Road is a good example of a high-volume road on which one or more wildlife crossings would be indicated. Oro Valley reports 25 deer killed in all the roads in the town in a 5 year period.

Building on this previous work, this paper presents three alternatives relating to a biological corridor:

- A. A corridor relying principally on Canada del Oro wash;
- B. A corridor using only State Trust Land;
- C. A corridor using both State Trust Land and some land that is now privately owned.

**Background.** Fig 1 map gives an overview of the area in which proposals A, B, and C lie:

The road in the center is Oracle Road (State Route 77.) Three major washes are shown on the map in blue. The center one is Canada del Oro. To the right of it is Sutherland Wash. Sutherland and Canada del Oro both drain the Catalinas. The leftmost major wash is known as Big Wash, and drains the Tortolitas. Honey Bee Canyon (not shown) in the Tortolitas is a tributary of Big Wash.

Fig. 2 shows the areas proposed by Pima Co. as biological corridors. The areas in blue are parcels of State Trust Land that Pima County has requested be reclassified under the Arizona Preserve Initiative (API). The area to the west of Oracle Road is part of the TEBC, while the area to the east is Catalina State Park Expansion.

### **Alternative A: A corridor relying principally on Canada del Oro wash.**

This corridor is near First Ave. in the overview map. In detail, the area is shown in Fig. 3.

The area to the east of Oracle Road is part of Catalina State Park, and running through it is Canada del Oro wash. Oracle Road has a bridge across the wash. Big Wash joins Canada del Oro west of Oracle Road.

As can be seen from the map, there is already residential development in close proximity to Canada del Oro east of Oracle. The parcels on the west side of Oracle, south of the wash, are owned by Steam Pump Village Investors, and a shopping center is scheduled to go in there in the near future. The land west of Oracle and north of the wash is owned by Vistoso Partners, and another shopping center is expected to be built in that area, in the area southwest of the Oracle and Tangerine Road intersection.

In some areas, including the area where it crosses under Oracle Road, Canada del Oro has been channelized, and given concrete walls, presumably to guard against erosion of its banks. This makes it difficult or impossible for wildlife to enter and exit the wash from the sides. Large mammals may be less likely to use it as a corridor for this reason.

Equestrians, sometimes in large groups, use the wash as a path from stables on the west side of Oracle over to the Catalinas and back.

For these reasons and because further development proposed in the area, Canada del Oro Wash by itself probably does not provide an adequate biological corridor.

### **Alternative B: A corridor using only land now publicly owned**

Alternative B is at the northern edge of the overview map and is shown in fig 4 and 4a.

The advantage of this alternative is that it makes use of land that has already been set aside. On the east side of Oracle, in addition to Catalina State Park, it would use state trust land that is not likely to have any commercial value, since it is adjacent to a penal institution. On the west side of Oracle, it includes land that is also unattractive for development because it was once used as a county landfill but is now closed. All of the land in question appears to be covered by the Arizona Preserve Initiative. This is land covered by Pima County's API petition mentioned in the Introduction.

This would provide land on both sides of Oracle Road for a biological corridor, but what about the road itself? The Arizona Department of Transportation has plans to widen and improve this stretch of Oracle Road. In the process of doing that, it would be possible to construct a bridge in this area, so that wildlife could pass underneath the road instead of over it.

The only disadvantage of the site is that the state land available south of the Correctional Institute is about 500 ft wide at its narrowest point. The advantage is that, aside from the cost of the bridge, all land is publicly owned.

**Alternative C: A corridor using both State Trust Land and some land that is now privately owned.**

Alternative C is in the same area as alternative B, but its Oracle Road crossing is farther south. See Figs. 5 and 5a.

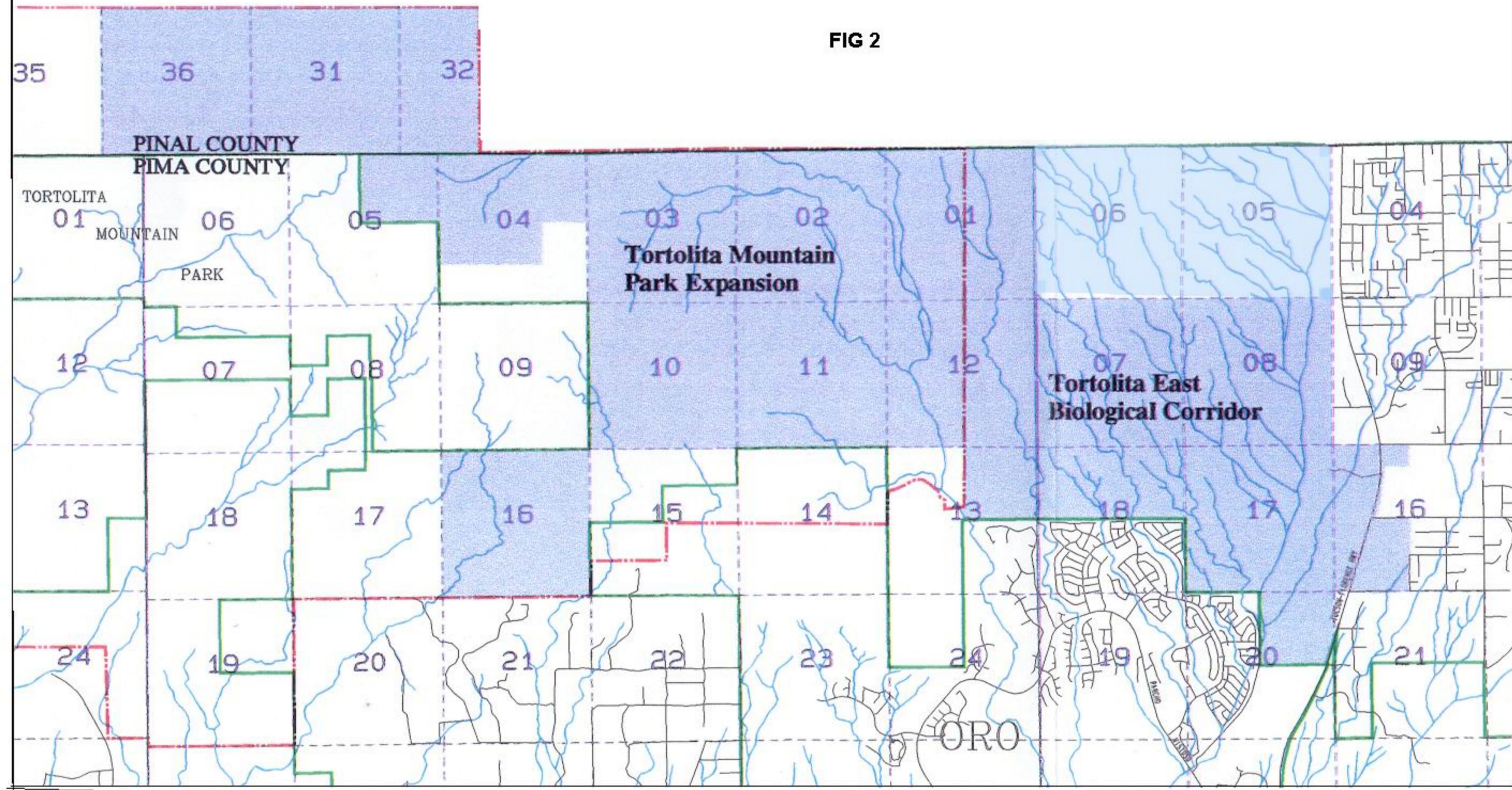
The parcel marked in red is privately owned. Public records indicate that this is parcel 223-04-0960. The land across Oracle Road from it is parcel 222-45-001B, and is already part of Catalina State Park. The parcel north of it is number 223-04-0950. It and adjacent parcels in dark yellow are part of the land Pima County has requested be reclassified in its TEBC Arizona Preserve Initiative petition.

**Summary and conclusion.** Alternative A is the least expensive. Oracle Road already has a bridge at that location. But because the wash has been channelized and adjacent land is developed or is planned for development, this alternative seems inadequate.

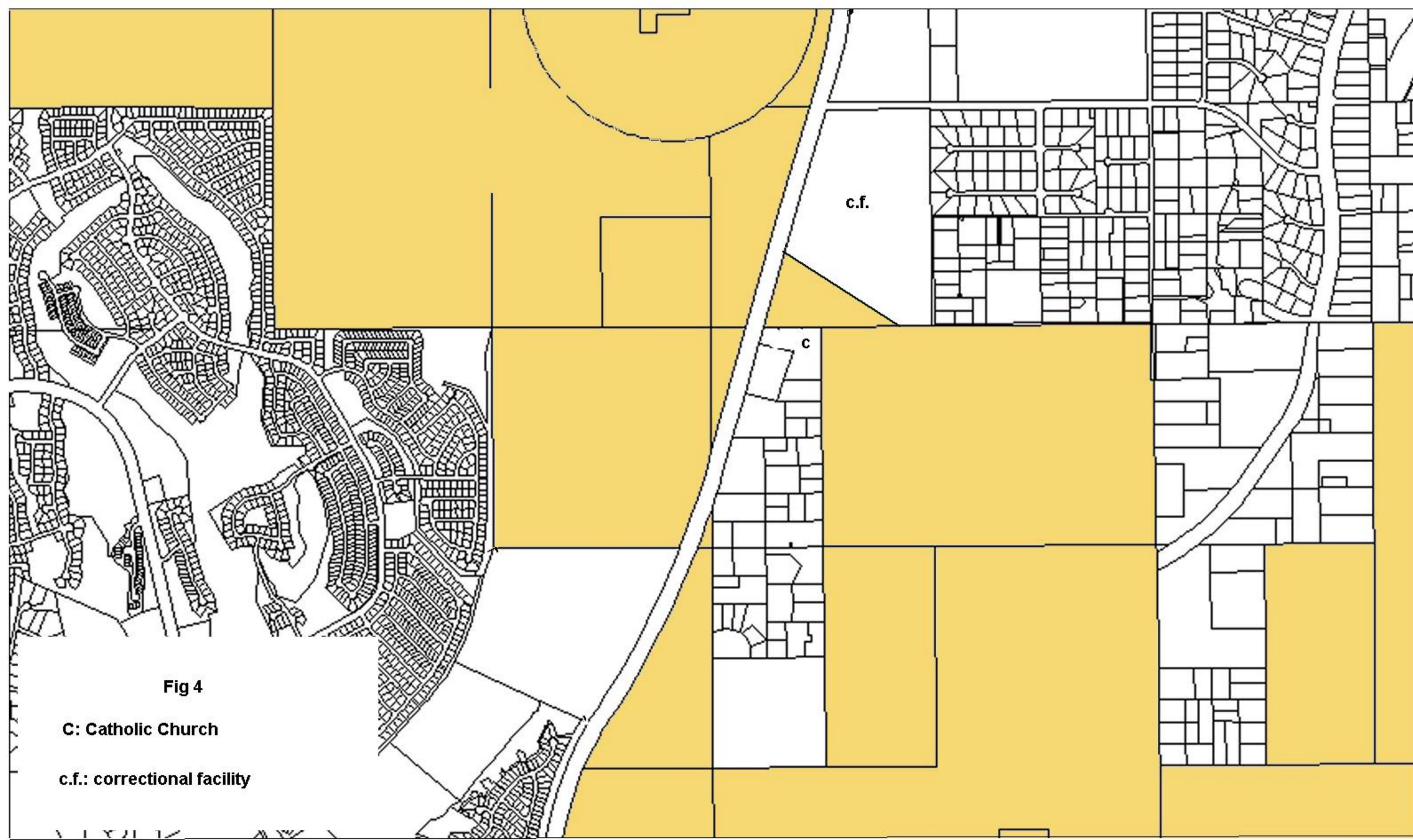
Alternatives B and C are both much more promising. C is more expensive but provides a wider corridor. In our opinion, one or the other of these should be included in the Sonoran Desert Conservation Plan.



FIG 2





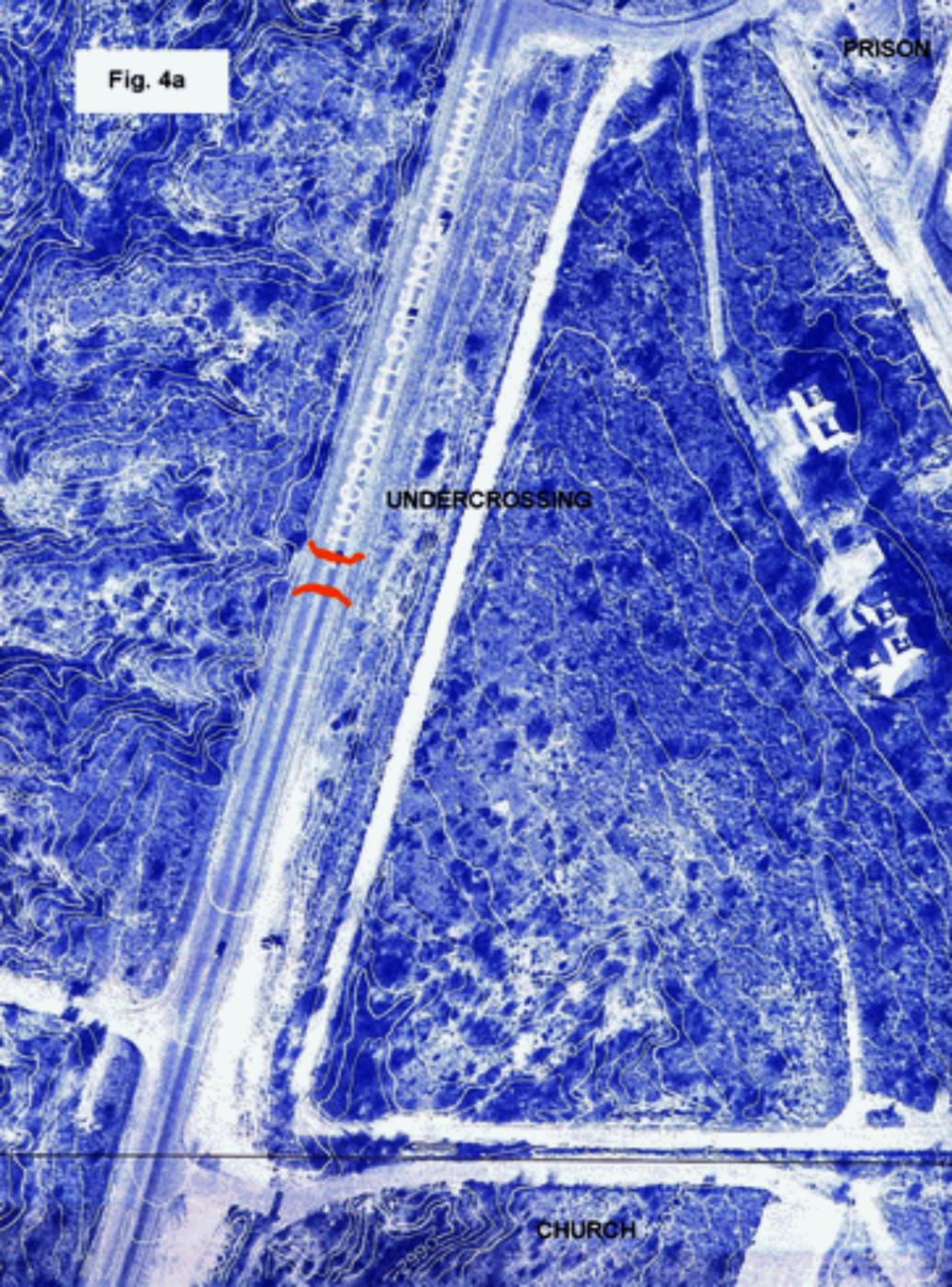


**Fig 4**

**C: Catholic Church**

**c.f.: correctional facility**

Fig. 4a



PRISON

UNDERCROSSING

CHURCH

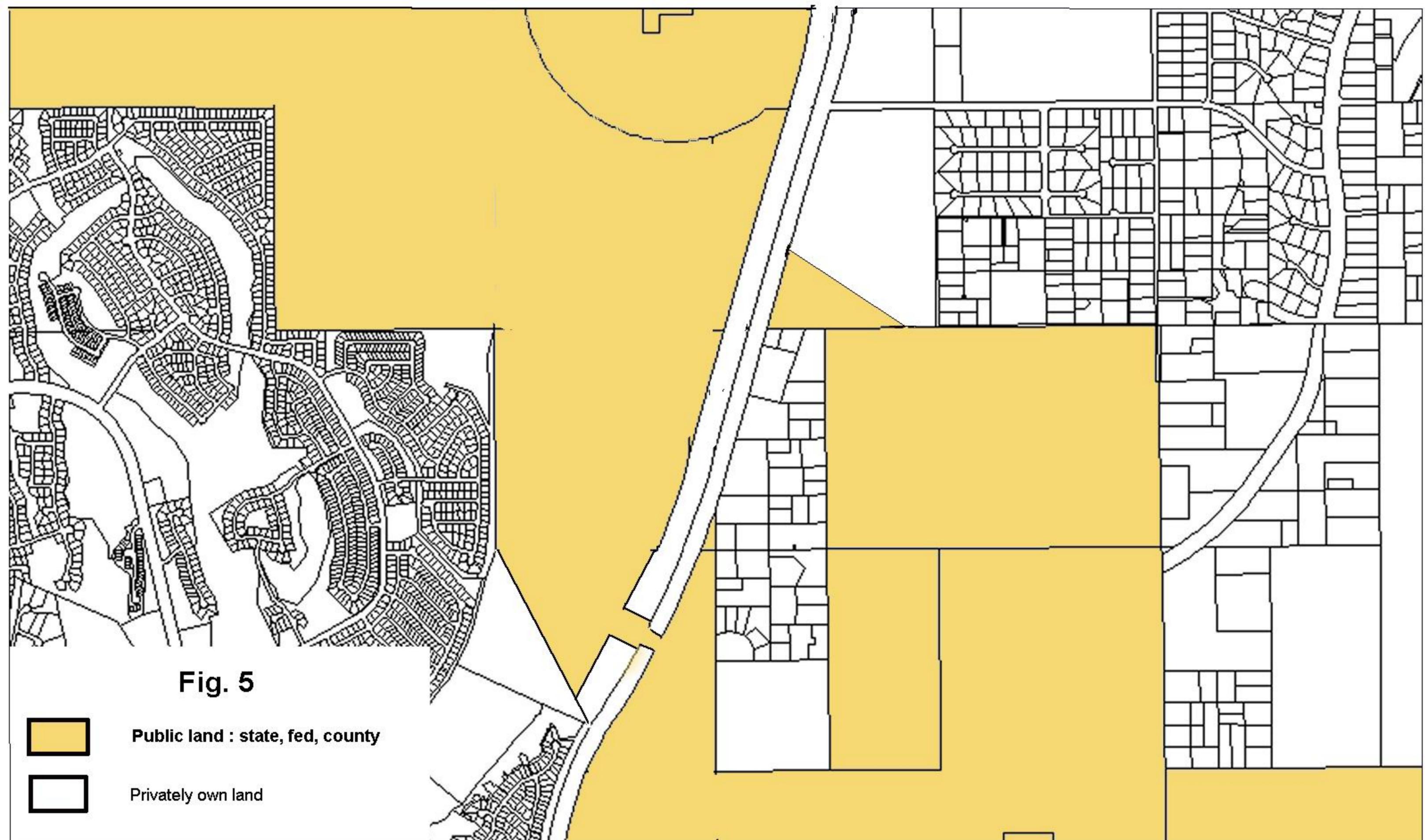


Fig. 5a



