

**Bailey Avenue
Class I Trail Overcrossing Bay Area Ridge Trail Connection Spring 2022
Feedback from Pathways for Wildlife**



5/30/2022

A. Wildlife Movement & Wildlife-Vehicle Collision Data in relation to the Bailey Overpass & US-101.

Locations in which the trail goes over roads is a great opportunity for facilitating wildlife movement safely over the roads. Interestingly, the locations in which the trail is going over the roads are also roadkill hot spot locations in which wildlife are being hit at US-101 at Bailey Avenue and Monterey Road (Coyote Valley Linkage Assessment Study, Pathways for Wildlife 2015-2016, Figure 1). Therefore, wildlife might be inclined to also travel along the trail system as the landscape is already facilitating wildlife movement between Coyote Ridge and Coyote Creek County Park at the Bailey Overpass.

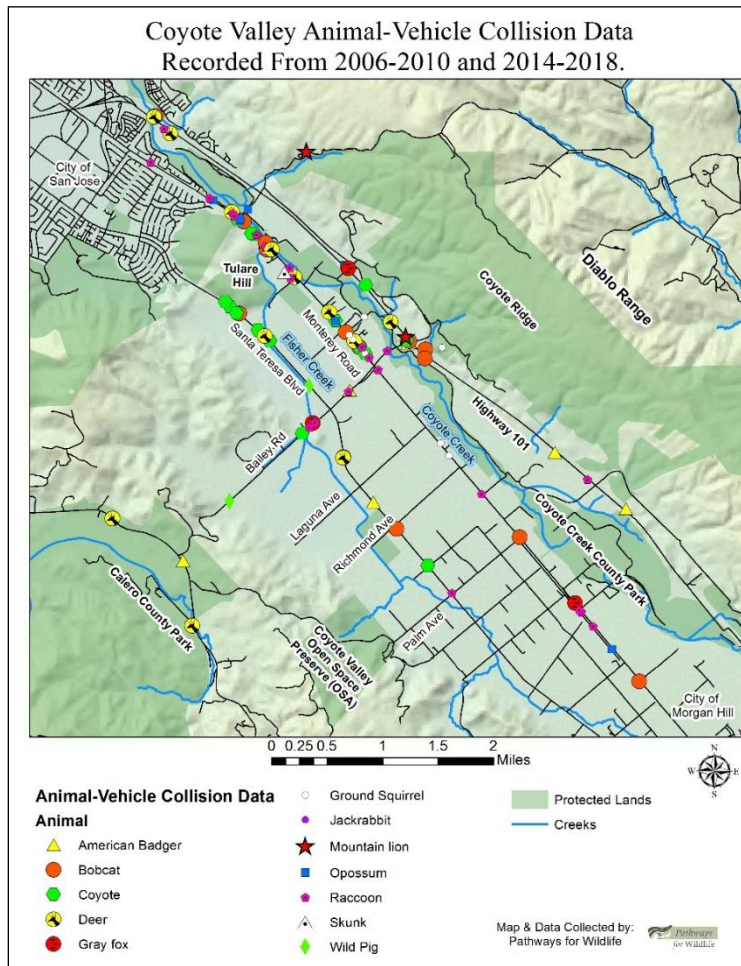


Figure 1. Coyote Valley Wildlife-Vehicle Collision data: 2006-2010 & 2014-2018.

Pathways for Wildlife also recorded a high amount of wildlife movement underneath the Bailey overpass at Coyote Creek Coyote Park. Multiple species such as bobcat, coyote, deer, gray fox, raccoon, and wild pig were recorded traveling under the overpass in 2015 (Coyote Valley Linkage Assessment Study, Pathways for Wildlife 2015-2016, Figures 2-5). Both the roadkill and movement data indicate that the Bailey Overpass is a wildlife movement thoroughfare location within the project area.



Figure 2. Coyote puppies traveling under the Bailey Overpass 6-25-2015.



Figure 3. Deer traveling under the Bailey Overpass 4-17-2015.



Figure 4. Bobcat traveling under the Bailey Overpass 5-1-2015.



Figure 5. Wild pigs traveling under the Bailey Overpass 5-10-2015.

B. Recommendations

We recommend the following practices and strategies for facilitating safe wildlife movement along the trail system.

1. Locations in which the trail goes over any roads should include directional fencing so that wildlife can not access the roads from the trails as they may also use the trail system to cross the roads. Please see Figure 6 for an example of effective directional fencing designs.

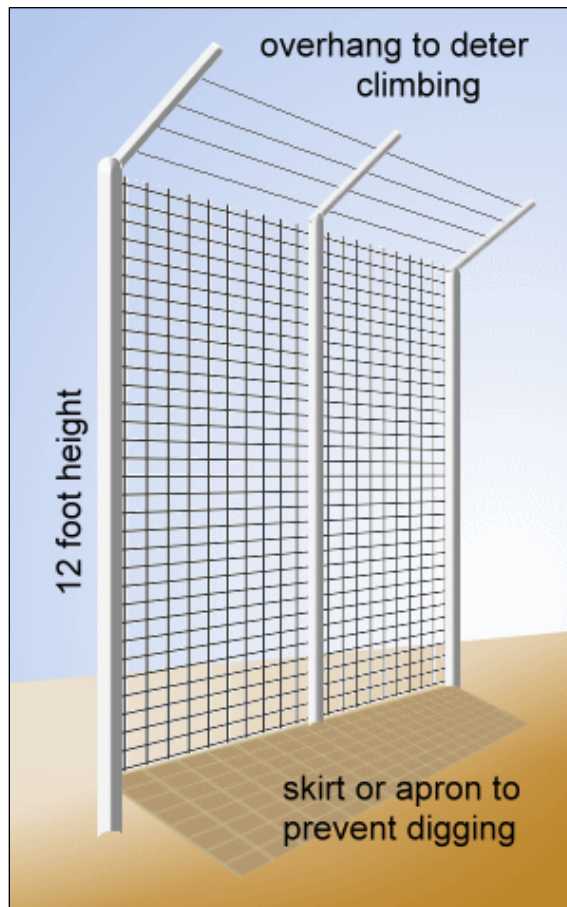


Figure 6. Directional fencing design.

2. Any gates and fencing that needs to be opened to access the trail would also benefit as being wildlife friendly. For example, for gates, spacing between bars should be 1-2ft apart. Barbed wire should be smoothed stranded so that wildlife does not get caught or hurt on the barbed wire (Figure 7). A great guide to wildlife friendly fencing designs includes: *A Landowner's Guide to Wildlife Friendly Fences* 2012.

together.

The bottom wire or rail should be high enough for adult pronghorn and young wild ungulates to crawl under. The bottom wire should be a minimum of 16" from the ground and preferably at least 18." Take advantage of small dips, swales, and gullies to provide a slightly larger gap below the fence and allow animals to pass under easily. Many cattle ranchers have found that although a small calf may slip under the higher bottom wire, it can also easily slip back again to its mom and not be stranded on the wrong side of the fence.

IDEAL WILDLIFE FRIENDLY FENCE

The Wildlife Friendly Fence: A Livestock/Wildlife Compromise

These standards will control cattle in most situations and allow for easier wildlife passage.

Fences should have top wires low enough for adult animals to jump, bottom wires high enough for wildlife to crawl under, and minimize the chance of tangling. We recommend:

- A top wire or rail preferably no more than 40" and a maximum of 42" above the ground;
- At least 12" between the top two wires;
- A bottom wire or rail at least 16" and preferably 18" above the ground;
- Smooth wire or rail for the top, smooth wire on bottom;
- Preferably, no vertical stays. If used, consider stiff plastic or composite stays, or regularly maintain wire stays that are easily bent;
- Posts at 16.5-foot intervals;
- Gates, drop-downs, or other passages where wildlife concentrate and cross.

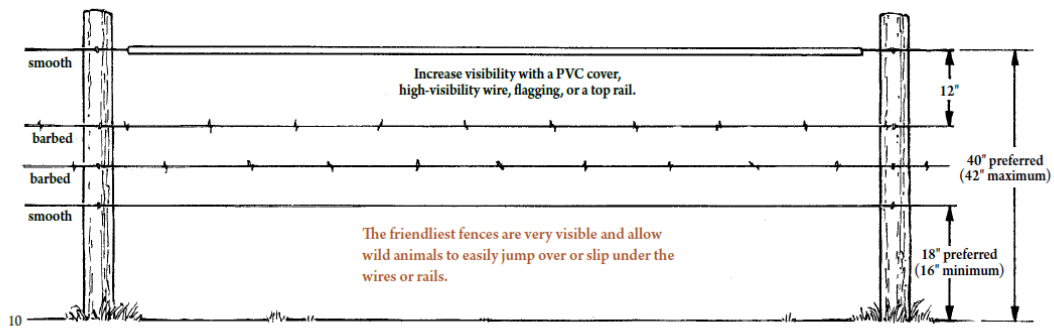


Figure 7. Wildlife Friendly Fences – 2012

3. Include wildlife friendly designs in terms of substrate and vegetation. Where possible, especially where the trail crosses over the road, use a soil substrate to create a natural surface. Many species of wildlife also tend to travel along cover. Where possible, create a visual guide by planting vegetation along the trail system. A great reference for this type of design can be found in the recent publication: Innovative Strategies to Reduce the Costs of Effective Wildlife Overpasses McGuire T 2021 (Figure 8).



Innovative Strategies to Reduce the Costs of Effective Wildlife Overpasses



Figure 8. Innovative Strategies to Reduce the Costs of Effective Wildlife Overpasses.

C. Monitoring

We recommend setting up cameras along the Bailey Overpass to determine if wildlife are traveling along the overpass as animals such as American badgers have been recorded hit on it (Figure 9). This data is not reflected in Figure 1, as it was a separate data collection effort done for T. Diamond's master thesis work.



Figure 9. Bailey Ave. Overpass American Badger roadkill on 6-23-08.

We also recommend monitoring the trail post construction to compare it to baseline monitoring data to see if the trail is facilitating an increase of wildlife movement across the overpass.

D. Literature Cited

A Landowner's Guide to Wildlife Friendly Fences. 2012. Montana Fish, Wildlife, and Parks.

Coyote Valley Linkage Assessment Study. 2015-2016. Pathways for Wildlife.

Innovative Strategies to Reduce the Costs of Effective Wildlife Overpasses. McGuire T 2021.