Southwest Florida Road Hot Spots

Based on Documented Florida Panther Vehicle Mortalities and Injuries as of December 31, 2017

Transportation SubTeam Report
to
Florida Panther Recovery Implementation Core Team

September 2018
METHODOLOGY

• Buffered all roads by 200 meters in ArcGIS

• Created a 1 km buffer around each panther-vehicle collision (deaths and injuries)

• Clipped the portion of the road buffers that fell within the 1 km buffer around each collision site

• Combined overlapping segments into a single segment

• Joined collision data to combined road segments

• Created “count” field

Categories of severity are based solely on Florida panther-vehicle collisions.

Final shapefile is a collection of road segments containing separate panther-vehicle collision sites within 1 km of each other.

Road segments vary in length and have an associated count field reporting how many collisions occurred in a particular segment.

Hot Spot categories (Count Fields): Red 9+ collisions  Orange 6-8 collisions  Green 3-5 collisions  Blue 1-2 collisions
Road segments exempted where collisions occurred prior to installation of crossings/fencing (e.g. I-75 Alligator Alley).

Road segments included with existing crossings/fencing that do not adequately alleviate hot spots (e.g. CR846 and segments of SR29).

**NOTICE**

The Transportation SubTeam is working to identify potential funding sources at the local, state, and federal level.

This is a living document. When amended periodically with additional vehicular deaths and injuries, the severity of road segments may elevate.

Severity may not dictate order in which crossings/fencing or other features are installed.

Additional information, such as telemetry, land cover, and land ownership, shall also be considered when determining the placement of crossing features. The Florida Department of Transportation’s (FDOT) 2018 *Wildlife Crossings Guidelines* should be consulted.

Four hot spots on I-75/Alligator Alley have been removed from the map and table since the nine miles of fencing between the Naples Toll Booth and Faka-Union Canal and terrestrial wildlife ledges under the Faka-Union and Miller canal bridges were completed in July 2017. These measures are expected to greatly reduce panther-vehicle collisions in this area. Efforts to improve connectivity on the western end of this segment continue.
HOT SPOTS:  Red 9+ collisions  Orange 6-8 collisions  Green 3-5 collisions  Blue 1-2 collisions  *Some measures completed
<table>
<thead>
<tr>
<th>Map Location</th>
<th>Road Segment</th>
<th>Deaths</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>SR29 north of CR858 Collier County</td>
<td>Red</td>
<td>Cooperating landowners at Owl Hammock Curve south of town of Immokalee, Collier Enterprises &amp; King Ranch, within proposed Eastern Collier HCP area FDOT PD&amp;E (see Project Status page) 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report</td>
</tr>
<tr>
<td>B</td>
<td>SR29 south of CR858 to Florida Panther NWR Collier County</td>
<td>Red</td>
<td>May have cooperating landowners within proposed Eastern Collier HCP area FDOT PD&amp;E (see Project Status page) 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report</td>
</tr>
<tr>
<td>C</td>
<td>CR846 east of Immokalee Collier County</td>
<td>Red*</td>
<td>Cooperating landowner, Barron Collier, within proposed Eastern Collier HCP area Collier County bridge replacement designs include panther/wildlife ledges 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report</td>
</tr>
<tr>
<td>D</td>
<td>US41, Turner River Collier County</td>
<td>Red*</td>
<td>RADS study completed and FDOT funding proposal for improvements under consideration 2016 Report Assessing the Effectiveness and Reliability of the Roadside Animal Detection System on US Highway 41 near the Turner River in Collier County Night Slow Speed Zone, 45 mph (Day = 60 mph)</td>
</tr>
<tr>
<td>E</td>
<td>SR82 Hendry County to Gator Slough Collier County</td>
<td>Orange</td>
<td>FDOT planning wildlife crossing features at Under Canal (west of Corkscrew Road) and Panther Creek (east of Corkscrew Road) bridge replacements. Cooperating landowners, Alico and King Ranch. 2009 Florida Panther Protection Program Technical Review Team Report</td>
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<tr>
<td>F</td>
<td>CR846 (N-S) East of CREW, Collier County</td>
<td>Orange</td>
<td>Collier County may reroute road eliminating curve, 846 Land Trust owns property on east Conservation land on west side (CREW)</td>
</tr>
<tr>
<td>G</td>
<td>CR832, Keri Road Hendry County</td>
<td>Orange/Blue</td>
<td>Western section crosses OK Slough public conservation lands network May have cooperating landowners Night Slow Speed Zone 45 mph (Day = 55mph), OK Slough public conservation lands network</td>
</tr>
<tr>
<td>H</td>
<td>CR858 (County Line Rd) Collier/Hendry line</td>
<td>Green</td>
<td>May have cooperating landowners, within proposed Eastern Collier HCP area Collier County bridge replacements <a href="#">2009 Florida Panther Program Technical Review Team Report</a></td>
</tr>
<tr>
<td>I</td>
<td>CR846, Camp Keais Strand Collier County</td>
<td>Green*</td>
<td>May have cooperating landowners, within proposed Eastern Collier HCP area <a href="#">2006 Eastern Collier Wildlife Movement Study</a> <a href="#">2009 Florida Panther Protection Program Technical Review Team Report</a> Experimental crossing built in 2013 and study is ongoing, limited fencing</td>
</tr>
<tr>
<td>J</td>
<td>CR833 at CR 832 Aka McDaniel Ranch Hendry County</td>
<td>Green</td>
<td>May have cooperating landowner, FPL Energy</td>
</tr>
<tr>
<td>K</td>
<td>CR846 (Crow’s Nest Hammock) Hendry County</td>
<td>Green</td>
<td>May have cooperating landowner, within King Ranch Sector Plan area</td>
</tr>
<tr>
<td>L</td>
<td>SR29 south of I-75 Collier County</td>
<td>Green/Blue</td>
<td>Conservation lands on both sides, Two existing crossings Night Slow Speed Zones, 45 mph (Day = 60mph)</td>
</tr>
<tr>
<td>M</td>
<td>US41, Collier-Seminole Park Collier County</td>
<td>Green/Blue</td>
<td>Picayune Restoration US41 culverts Conservation lands Night Slow Speed Zone, 45 mph (Day = 60 mph)</td>
</tr>
<tr>
<td>N</td>
<td>US41, Big Cypress NP</td>
<td>Green</td>
<td>Conservation lands</td>
</tr>
</tbody>
</table>
### HOT SPOTS:

- **Red 9+ collisions**
- **Orange 6-8 collisions**
- **Green 3-5 collisions**
- **Blue 1-2 collisions**

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<tr>
<td>CR858 east of SR29</td>
<td>Blue</td>
<td>Collier County bridge replacements</td>
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<tr>
<td>Collier County</td>
<td></td>
<td>May have cooperating landowners, within proposed Eastern Collier HCP area</td>
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<td></td>
<td></td>
<td><a href="#Note1">2006 Eastern Collier Wildlife Movement Study</a></td>
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<td></td>
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<td><a href="#Note2">2009 Florida Panther Protection Program Technical Review Committee</a></td>
</tr>
<tr>
<td>CR858 west of SR29</td>
<td>Blue</td>
<td>May have cooperating landowners, within proposed Eastern Collier HCP area</td>
</tr>
<tr>
<td>Summerland Swamp</td>
<td></td>
<td><a href="#Note1">2006 Eastern Collier Wildlife Movement Study</a></td>
</tr>
<tr>
<td>Collier County</td>
<td></td>
<td><a href="#Note3">2009 Florida Panther Protection Program Technical Review Team Report</a></td>
</tr>
<tr>
<td>CR850, Corkscrew Road</td>
<td>Blue</td>
<td>Collier County managed road</td>
</tr>
<tr>
<td>Lee/Collier line</td>
<td></td>
<td>Private lands on west side in Lee County</td>
</tr>
</tbody>
</table>

### ADDITIONAL HOT SPOT SEGMENTS

Golden Gate Boulevard between Wilson Blvd and Everglades Blvd in North Golden Gate Estates, Collier County, falls into the **orange (6-8 collisions)** classification. This segment is not detailed in the chart because North Golden Gate Estates is a large platted area of single-family lots that would make providing panther connectivity a challenge. Our recommendation for addressing this hot spot is driver education, public outreach programs, and speed enforcement.

Also, while there may be additional segments with **3-5** and **1-2** recorded collisions, they are not noted in detail. Where there may be crossing opportunities at the time of writing, those segments are included in this report. These roads should be monitored because they may intersect with known or intended regional habitat linkages. The status may be elevated due to collisions and/or further evaluation of telemetry, land cover, and other factors.
Existing Wildlife Crossing Locations
Project Status Sheet

Road Segment: SR29 from CR858 (Oil Well Road) to south of Immokalee (CR 846) (Owl Hammock)
Collier County
State managed road
Abutting landowners, King Ranch and Collier Enterprises, expressed willingness to cooperate with installation of
wildlife crossing(s) at Owl Hammock Curve
Within the proposed Eastern Collier Habitat Multi-Species Conservation Plan

Map Location: A

Deaths:  Red 9+ collisions

PD&E Status: PD&E on-going (public hearing scheduled for November 2018 with LDCA to follow in the spring of 2019, estimated)
FPID 417540-1, SR 29 from Oil Well Road to SR 82

Design/Construction Funding Snapshot:
As of 7/2018, FPID 417540-2, SR 29 from CR 858 to Sunniland Nursery Road funded for design in fiscal year 2024
417540-3 and -4, SR 29 from Sunniland Nursery Road to CR 846 funded for design in fiscal year 2019

Possible Solutions: Bridge replacement of SR 29 over Gator Creek (Owl Hammock)

Constraints: PD&E approval, future FDOT phases lack ROW and construction funding.

Costs: Two-lane bridge with shelves = $2,000,000
Four-lane bridges with shelves = $4,000,000

Commitments: none, PD&E pending

Resources:
2006 Eastern Collier Wildlife Movement Study
2009 Florida Panther Technical Review Team Report
2018 FDOT Wildlife Crossings Guidelines
Project Status Sheet

Road Segment:  
SR29 south CR858 (Oil Well Road) to Florida Panther National Wildlife Refuge  
Collier County  
State managed road  
Abutting landowners, Barron Collier and JB Ranch, may be willing to cooperate  
Within the proposed Eastern Collier Multi-Species Habitat Conservation Plan

Map Location:  
B

Deaths:  
Red 9+ collisions

PD&E Status:  
PD&E underway targeting completion late 2020, FPID 434490-1, SR 29 from I-75 to Oil Well Road (CR 858)

Design/Construction  
No future funding beyond PD&E currently programmed as of 7/2018

Funding Snapshot:  
unknown

Solutions:  
unknown

Costs:  
unknown

Commitments:  
none, feasibility study on-going

Resources:  
2006 Eastern Collier Wildlife Movement Study  
2009 Florida Panther Technical Review Team Report  
2018 FDOT Wildlife Crossings Guidelines
Road Segment: CR846 east of town of Immokalee
Collier County
Collier County managed road
Abutting landowner, Barron Collier, may be willing to cooperate.
Within the proposed Eastern Collier Multi-Species Habitat Conservation Plan

Map Location: C

Deaths: Red 9+ collisions

PD&E: None as of July 2017

Solutions:
2006 Eastern Collier County Wildlife Movement Study identified crossing locations
Easement protected habitat on both sides of road
Three bridges are candidates for wildlife ledges
“City Gate” Wildlife crossing completed construction in November 2011. 10 panthers were killed within this hotspot prior to the crossing and as of December, 31, 2016 two panthers have been killed by vehicle collisions since the City Gate crossing was completed.

FDOT Guideline Considerations: Not required.

Costs: Collier County designing bridge replacements with terrestrial wildlife ledges (Bridge #s 030137, 030139, 030141)
No funding available for replacement bridges and fencing

Commitments: 2006 Eastern Collier Wildlife Movement Study
2009 Florida Panther Technical Review Team Report

Resources:
## Project Status Sheet

| Road Segment: | US41, Turner River  
|              | Collier County, Big Cypress National Preserve  
|              | State managed road |
| Map Location: | D |
| Deaths:      | Red 9+ collisions |
| PD&E Status: | None |
| Design/Construction | As of 7/2018, no funding programmed |
| Funding Snapshot: | |
| Solutions:   | Existing Night Slow Speed Zone |
|              | Existing Roadside Animal Detection System (RADS) requires improvements |
|              | FDOT is researching alternatives to the RADS. |
| FDOT Guideline Considerations: | Wildlife crossing design features (Page 4) |
| Costs:       | RADS improvements = $250,000 |
| Commitments: | No funding identified for RADS improvements |
|              | 2018 FDOT Wildlife Crossings Guidelines |
## Project Status Sheet

**Road Segment:**
SR82 from Hendry County Line to Gator Slough Lane (430848-1)
Collier County
State managed road

**Map Location:**
E

**Deaths:**
Orange 6-8 collisions

**PD&E Status:**
Completed

**Solutions:**
FDOT planning wildlife crossing features (430848-1) at Under Canal (west of Corkscrew Road) and Panther Creek (east of Corkscrew Road) bridge replacements. Currently funded in fiscal year 2023 with the possibility of being advanced to FY 2021.
Cooperating landowners, Alico and King Ranch.

**Costs:**
Additional +/-$800k needed for wildlife crossing features included in the project construction costs

**Commitments:**

**Resources:**
Project Status Sheet

**Road Segment:**
Keri Road from SR29 to CR833  
Hendry County  
County managed road

**Map Location:**
G

**Deaths:**
Orange 6-8 collisions

**PD&E Status:**
None

**Solutions:**
Existing Night Slow Speed Zone  
Fencing and terrestrial crossings

**Costs:**

**Commitments:**

**Resources:**
An Assessment of the Importance of Hendry County Habitat Corridors Used by Florida Panthers and Safe Crossing Needs on Keri Road by UCF
Florida Panther Recovery Implementation Team
Transportation SubTeam

- **Core Team Liaison:** Elizabeth Fleming, Defenders of Wildlife
- **SubTeam Chair:** Amber Crooks, Conservancy of Southwest Florida
- Katasha Cornwell, Florida Department of Transportation
- Terry Gilbert, Florida Fish and Wildlife Conservation Commission
- Darrell Land, Florida Fish and Wildlife Conservation Commission
- Nancy Payton, Florida Wildlife Federation
- Gwen Pipkin, Florida Department of Transportation
- Don Scott, Lee County Metropolitan Planning Organization
- Brent Setchell, Florida Department of Transportation
- Dan Smith, University of Central Florida
- John Wrublik, U.S. Fish and Wildlife Service

[http://www.fws.gov/verobeach/FloridaPantherRITTransportation.html](http://www.fws.gov/verobeach/FloridaPantherRITTransportation.html)