

Southwest Florida Road Hot Spots

**Based on Documented Florida Panther Vehicle
Mortalities and Injuries as of December 31, 2016**

Transportation SubTeam Report
to
Florida Panther Recovery Implementation Core Team
August 2017

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+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths**

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) [2016 Wildlife Crossings Guidelines](#) should be consulted. The FDOT Guidelines are attached to this report.

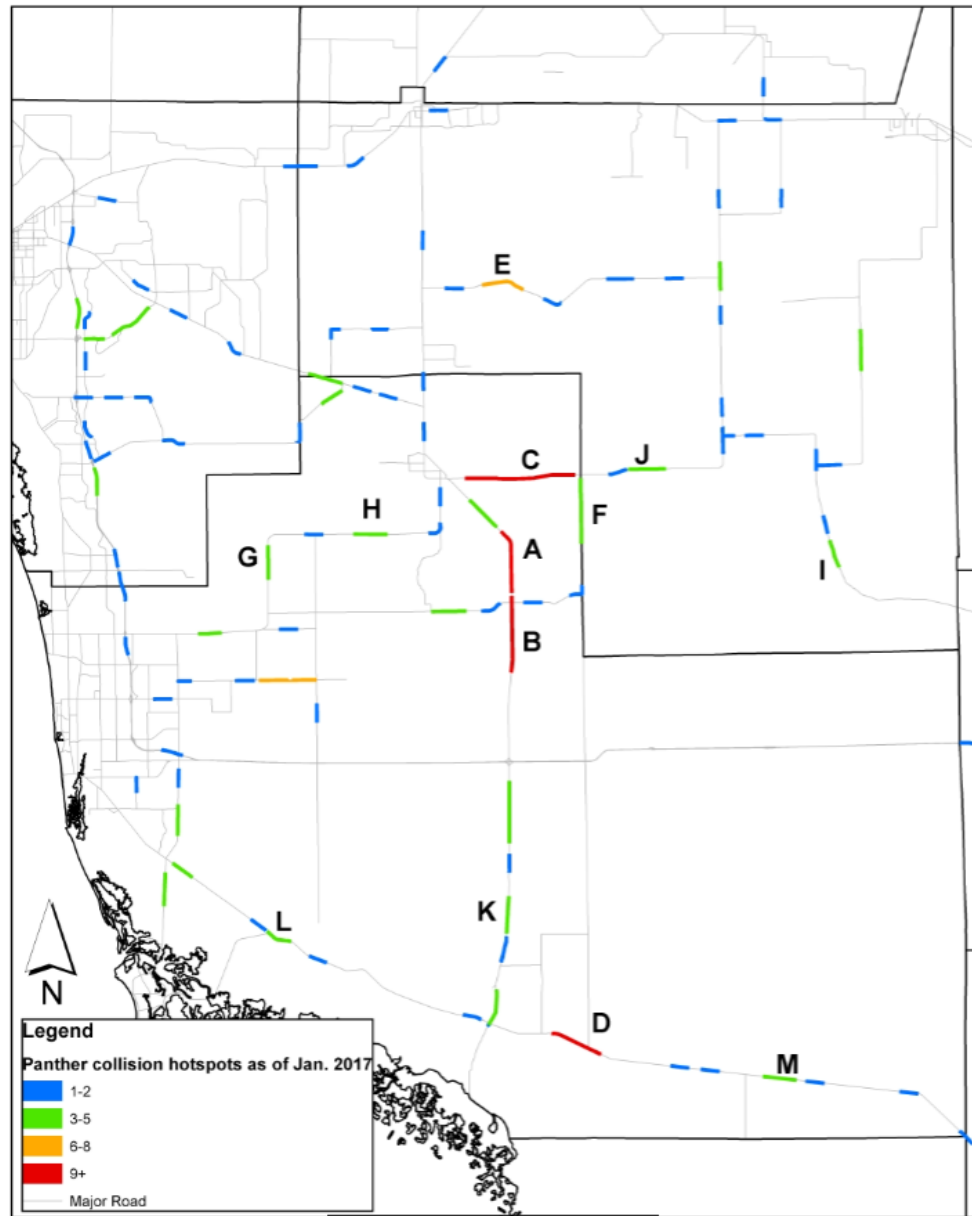
Four hot spots on I-75/Alligator Alley have been removed from the map and table since the 9 miles fencing between the Naples Toll Booth and Faka-Union Canal and terrestrial wildlife ledges under the Faka-Union and Miller canal bridges are completed. These measures are expected to greatly reduce road kills in this area. Efforts to improve connectivity on the western end of this segment continue.

HOT SPOTS: Red 9+ deaths

Orange 6-8 deaths

Green 3-5 deaths

Blue 1-2 deaths



HOT SPOTS: **Red 9+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths** ***Some measures completed**

Map Location	Road Segment	Deaths	Comments
A	SR29 north of CR858 Collier County	Red	Cooperating landowners at Owl Hammock Curve south of town of Immokalee, Collier Enterprises & King Ranch, within proposed Eastern Collier HCP area FDOT PD&E (see Project Status page) 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report
B	SR29 south of CR858 to Florida Panther NWR Collier County	Red	May have cooperating landowners within proposed Eastern Collier HCP area FDOT PD&E (see Project Status page) 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report
C	CR846 east of Immokalee Collier County	Red*	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
D	US41, Turner River Collier County	Red*	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)
E	CR832, Keri Road Hendry County	Orange/Blue	Western section crosses OK Slough public conservation lands network May have cooperating landowners Night Slow Speed Zone 45 mph (Day = 55mph) through OK Slough public conservation lands network

HOT SPOTS: **Red 9+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths** ***Some measures completed**

Map Location	Road Segment	Deaths	Comments
F	CR858 (County Line Rd) Collier/Hendry line	Green	May have cooperating landowners, within proposed Eastern Collier HCP area Collier County bridge replacements 2009 Florida Panther Program Technical Review Team Report
G	CR846 (N-S) East of CREW Collier County	Green	Collier County may reroute road eliminating curve, 846 Land Trust owns property on east Conservation land on west side (CREW)
H	CR846, Camp Keais Strand Collier County	Green*	May have cooperating landowners, within proposed Eastern Collier HCP area 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report Experimental crossing built in 2013 and study is ongoing, limited fencing
I	CR833 at CR 832 Aka McDaniel Ranch Hendry County	Green	May have cooperating landowner, FPL Energy
J	CR846 (Crow's Nest Hammock) Hendry County	Green	May have cooperating landowner, within King Ranch Sector Plan area
K	SR29 south of I-75 Collier County	Green/Blue	Conservation lands on both sides, Two existing crossings Night Slow Speed Zones, 45 mph (Day = 60mph)
L	US41, Collier-Seminole Park Collier County	Green/Blue	Picayune Restoration US41 culverts Conservation lands Night Slow Speed Zone, 45 mph (Day = 60 mph)
M	US41, Big Cypress NP	Green	Conservation lands

HOT SPOTS: **Red 9+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths**

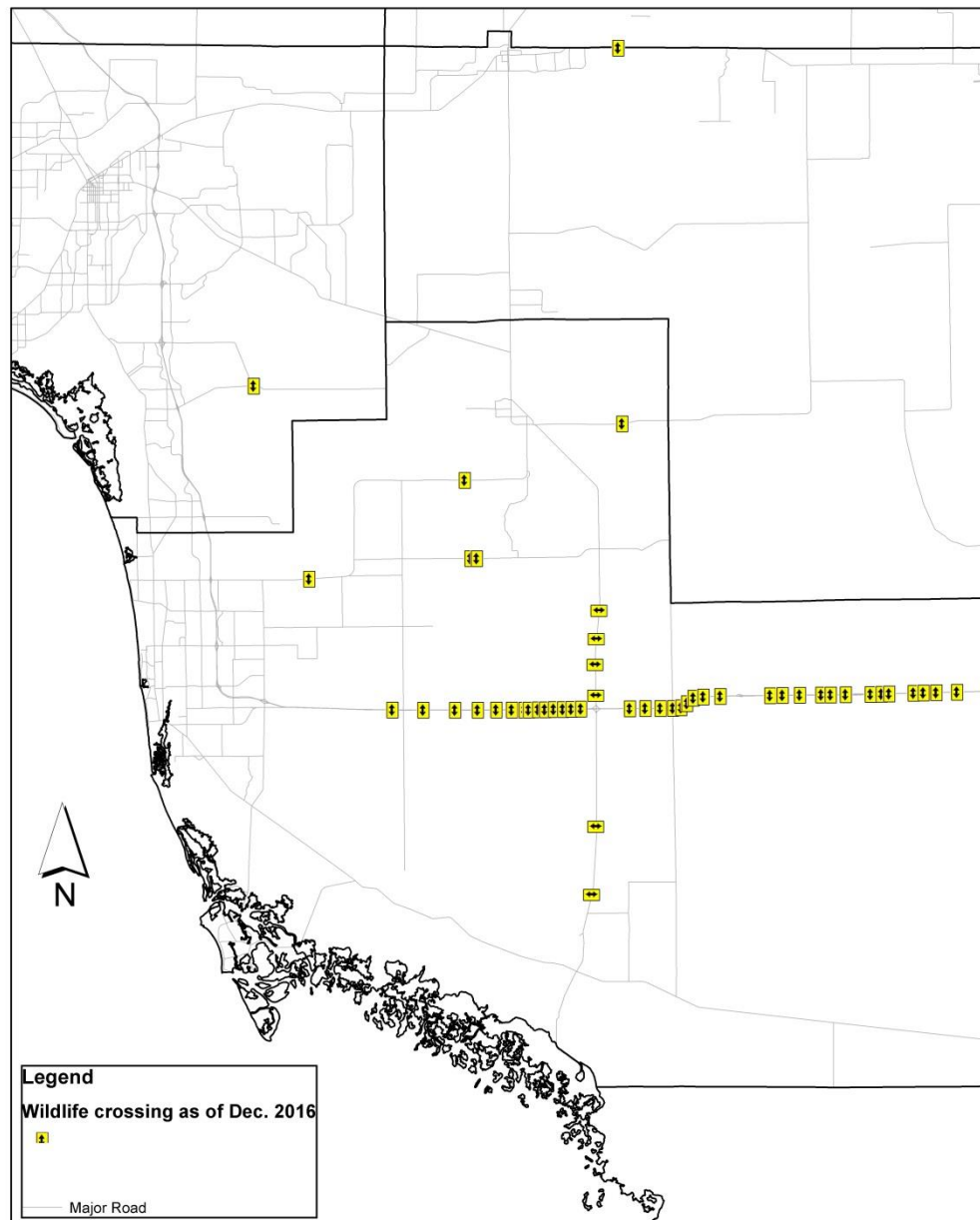
Road Segment	Deaths	Comments
CR858 east of SR29 Collier County	Blue	Collier County bridge replacements May have cooperating landowners, within proposed Eastern Collier HCP area 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Committee
CR858 west of SR29 Summerland Swamp Collier County	Blue	May have cooperating landowners, within proposed Eastern Collier HCP area 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report
CR850, Corkscrew Road Lee/Collier line	Blue	Collier County managed road Private lands on west side in Lee County
SR82 Collier County	Blue	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

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)** 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 deaths; 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 mortalities and/or further evaluation of telemetry, land cover, and other factors.

Existing Wildlife Crossing Locations, December 2016



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+ deaths
PD&E Status:	PD&E on-going (estimated completion Winter 2018) FPID 417540-1, SR 29 from Oil Well Road to SR 82
Design/Construction Funding Snapshot:	As of 6/2017, design Not Funded for FPID 417540-2, SR 29 from CR 858 to Sunniland Nursery Road 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 2016 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+ deaths
PD&E Status:	Feasibility study (pre-PD&E) on-going, PD&E to begin September 2017, FPID 434490-1, SR 29 from I-75 to Oil Well Road (CR 858)
Design/Construction Funding Snapshot:	No future funding beyond PD&E
Solutions:	unknown
Costs:	unknown
Commitments:	none, feasibility study on-going
Resources:	2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Technical Review Team Report 2016 FDOT Wildlife Crossings Guidelines

Project Status Sheet

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+ deaths
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:	
Commitments:	Collier County designing bridge replacements with terrestrial wildlife ledges No funding available for replacement bridges and fencing
Resources:	2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Technical Review Team Report

Project Status Sheet

Road Segment:	US41, Turner River Collier County, Big Cypress National Preserve State managed road
Map Location:	D
Deaths:	Red, 9+ deaths
PD&E Status:	None
Design/Construction Funding Snapshot:	As of 6/2017, no funding programmed
Solutions:	Existing Night Slow Speed Zone Existing Roadside Animal Detection System (RADS) requires improvements
FDOT Guideline Considerations:	Wildlife crossing design features (Page 4)
Costs:	RADS improvements = \$250,000
Commitments:	No funding identified for RADS improvements
Resources:	2016 Report Assessing the Effectiveness and Reliability of the Roadside Animal Detection System on US Highway 41 near the Turner River in Collier County 2016 FDOT Wildlife Crossings Guidelines

Project Status Sheet

Road Segment:	Keri Road from SR29 to CR833 Hendry County County managed road
Map Location:	E
Deaths:	Orange, 6-8 deaths
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: Nancy Payton, Florida Wildlife Federation
- Katasha Cornwell: Florida Department of Transportation
- Amber Crooks, Conservancy of Southwest Florida
- Terry Gilbert, Florida Fish and Wildlife Conservation Commission
- Darrell Land, Florida Fish and Wildlife Conservation Commission
- Xavier Pagan, Florida Department of Transportation
- 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>