

Panther Recovery Implementation Team (PRIT)

Transportation Sub-team

Meeting Minutes

November 15, 2016

Florida Department of Transportation (FDOT) District 1 Office, Bartow, FL

Attendees:

Amber Crooks
Katasha Cornwell
Elizabeth Fleming
Terry Gilbert
Darrell Land
Nancy Payton
Gwen Pipkin
Don Scott
Brent Setchell
John Wrublik
David Shindle
Dan Smith

Members of the Public and other Guests:

Ron Clark, NPS & PRIT core team
Nicole Cribbs, Faller, Davis & Associates, Inc.
Chris Dailey, RS&H
Mark Easley, KCA (Kissinger Campo & Associates)
Annette Johnson, NPS
Rob Myers, Metric Engineering
William Sloup, Metric Engineering
Patrick Bateman, FDOT
Tori Catalo, FGCU student

Welcome, Meeting Minutes, Communications

- Announcement that FWS has a new transportation biologist, John Tupy.
- Nancy reported on flooding in CityGate crossing on CR 846 east of Immokalee. Flooding on the swale on the north side of the crossing may have contributed to deaths. Collier Country Transportation installed a land bridge and pipe to handle the water flow with gates on the south side of the road.
- Brent provided an update on I-75 Alligator Alley fencing project. Project began 11-14-2016 to install fencing along 9 miles of Alligator Alley from the Naples Toll Booth to the Faka-Union Canal where the fence currently ends. FDOT completed improvements to two bridges (Miller Canal and Faka Union bridges) by providing shelf crossings. Conservancy and FWF submitted comments to FDOT in response to the Alley crossing

feasibility study suggesting crossing locations for the seven-mile stretch currently without any crossings.

- Nancy and Dan secured a grant to document panther behavior in crossings, not just still photo shots.
- Elizabeth gave an overview of the September 1 PRIT meeting for David.
- David mentioned that he and Larry Williams would be at the November 16 FWC Commissioners meeting in St. Petersburg for the annual Florida panther update.
- Nancy mentioned that the Florida Panther National Wildlife Refuge allowed a contractor removing exotic vegetation in Picayune Strand to use a crossing on I-75 which may have contributed to the death a female panther on I-75. Dan mentioned that there are all sorts of cameras deployed in various wildlife underpasses (e.g. even the News Press), some are inappropriate with flashes. He suggested that FDOT try to assemble a register (require a permit) for placing cameras in underpasses.

Southwest Florida Hotspots

- SubTeam provided a presentation to the PRIT Core Team on September 1, 2016. They asked that we include existing crossings on the map. There were no additional comments.
- There was also a consensus amongst SubTeam to wait to finalize the hotspots map until after the new year to be able to include all the 2016 vehicle collision data and provide a good recurring date for future updates.
- Will follow up final product with letters transmitting the final product to relevant entities. Conservancy and FWF prepared a list that can be provided as part of a package for PRIT core team and then FWS (Larry Williams and David).
- Amber asked about inclusion of all crossings even the “experimental” crossing on Immokalee Road at Camp Keais Strand that is smaller than many crossings (5 ft x 10 ft).
 - The group discussed the dimensions of crossings and what is truly “experimental” and scientifically tested. Dan reported that bears and panthers have utilized that crossing, but not yet deer. Nancy noted that the crossing was designed for panthers, not a broad range of wildlife.
 - Amber suggested that if road mortalities continued at that particular or any of the crossings, that hotspots may persist. There was a consensus to include all crossings in the map.
- Dan is looking at multiple structure types and behavioral acceptance of structures (e.g. 2-lane and 4-lane standards to use to make them more economical). NPS and the Naples Zoo are contributing to the study. Deer have not been documented to use the crossing at Camp Keais Strand on Immokalee Road and deer turn back from the crossing at Twin Eagles. Nancy commented that the grant to construct the crossing on Immokalee Road and Camp Keais was for a panther crossing, not a general wildlife crossing. The Twin Eagles crossing was designed for small mammals.

Roadside Animal Detection System (RADS)

- Dan’s prior presentation on RADS had identified gaps in signage and other significant problems with this system.

- Update presentation by Dan that reviewed what the system is, where it is located, and studies he conducted.
 - He described the three year Driving Simulator Study, and Field speed measurements.
 - Driving Simulator Study tested for speed, braking distance, and crash probability, as well as word-based v. picture-based sign design.
 - Results: drivers went more slowly with picture-based and applied brakes earlier with RADS.
 - They also conducted field speed measurements.
 - Tested at twilight and at night, as well as with RADS and without RADS, and season.
 - Results: speed is higher in tourist season, local traffic slower. Locals did not reduce speed as much as tourists.
 - They also monitored tracks. Panthers, bears, and coyotes most active from mid-October through mid-March, which fell during tourist season.
 - Bobcat was less consistent. Similar results with the cameras.
 - Also high peak in May for panthers and July for coyote.
 - Even if RADS reduced car speed by 5 km/hr that would still relate to a 25% reduction in probability of crashes.
- Alternatives/Recommendations
 - Alternatives included retaining current system with minimal modifications and retaining current system but limit operation to time of day when target animals most active.
 - The alternative that Dan suggested was to reduce current system to three smaller coverage areas at critical crossing locations.
 - Other recommendations to improve included replacing the above ground “break the beam” animal detection system with technology more suited to the US 41/Turner River location, as well as a number of signage and operational changes (add warning signs at terminus of zone to eliminate dark segments, offset south-side sensor poles another 5-10 ft, reduce sign clutter, reduce flashing period from 5 minutes to 2.5 minute, remove/replace word-based warning signs with picture/animated warning signs).
 - Dan also recommended solar power for the cameras to reduce labor on the monitoring.
- There was a consensus among the SubTeam to prioritize remediation, given that there was already substantial investment in the RADS system at that location (over \$1 million) and that area being one of the most severe hotspots.
- Katasha stated that the FDOT could submit proposal for research funds. Proposals are due in January.
 - In order to submit that and other efforts to remediate, the SubTeam will send email to Core Team for their involvement. NGOs can also send letters.

SR29 from I-75 to Oil Well Road

- Presentation by Gwen Pipkin, and Will Sloup and Rob Myers from Metric Engineering.

- PD&E Study Phase 1 planning. Next step would be Phase 2 engineering analysis, environmental analysis, and public involvement. Haven't started PD&E, just doing feasibility currently.
- Project specifics:
 - 10.2 miles, current 2 lane, 12' lane and 4' shoulders.
 - Emerging Strategic Intermodal System (SIS).
 - 4 bridges and 4 wildlife crossings in that area.
 - A hurricane evacuation route and primary truck route.
 - Bisection of Big Cypress National Preserve (BCNP) and Florida Panther National Wildlife Refuge (FPNWR).
 - Rural Economic Development Initiative in these rural areas.
 - Has truck traffic double of a normal highway.
 - 55-60 mph, nighttime speed limit of 45mph.
- They reviewed some alternatives:
 - Passing lanes: no capacity improvement, but improves safety and minimizes environmental impacts. Cost is approximately \$7million.
 - 2 lane enhanced: no capacity improvement, improves operation, reduces severity of crashes, minimized environmental impacts. Cost is approximately \$54 million. With passing lanes cost would be approximately \$61 million.
 - 4 lane rural: 12' lane and 40' median, could provide opportunities for crossings/fencing. Cost is approximately \$58 million.
 - 4 lane minimization: 12' lanes and 36' median, could provide opportunities for crossings/fencing, requires variations (border and median width, and clear zone). Cost is approximately \$58 million.
 - Amber asked about "clear zone" and "minimization" median difference. These variations will require federal permission to deviate from standards.
 - 4 lane rural with wildlife crossings: berms to block vehicle light and noise on the approaches, directional fencing funneling wildlife into the crossing, light penetrates in medians, earthen ramps/bridges crossing adjacent canal, min. dimensions of crossings 24' wide.
- They have met with FPNWR, will be coordinating with Vero USFWS and BCNP as well.
 - Restoration of hydrology and water quality were discussed.
- FDOT owns approximately 100' of ROW west of the existing roadway which FDOT currently leases to FPNWR.. Therefore, FDOT would not have to acquire ROW from FPNWR if widening was the preferred option, but would be subject to regular process for habitat/wetlands permitting and mitigation.
- Dan Smith is a part of their team on this project.
- Amber brought up a recent panther mortality (August 2016) near Hinson Marsh FPNWR on SR29. David had mentioned that they were not able to find where the panther entered the highway in the fenced portion, but there is an area where the fencing terminates south of the Marsh where wildlife could enter the highway. FDOT and David are looking into the issue.
- Several SubTeam members asked about Level of Service (LOS) as the presentation predicted SR29 not meeting those standards in the future. The response was that a traffic study is being conducted now. It should be completed in early 2017.

- FDOT staff mentioned that there are 9 criteria for need, and traffic is only one of them – safety is another.
- FDOT staff believed that they won't likely need to do 6 lane construction in the future. If needed in the future beyond a 4 lane road, could reduce speed and/or develop into the median.
- Gwen agreed to provide an update to the SubTeam after the conclusion of the traffic study, perhaps in the February or March timeframe.
- John spoke to fitting the project within the cleared fenced portion to minimize habitat disruption.
- Darrell brought up the challenges of allowing wildlife to use existing crossings during construction and breach of fencing.
- The SR29 lighting project that is ongoing at the interchange was also mentioned. BCNP just received “dark sky” designation.
- Elizabeth and Nancy offered to set up a meeting with private landowners along SR29, FDOT, and Metric Engineering.

Funding Opportunities

- Amber reviewed past SubTeam discussion regarding local, state, and federal funding opportunities:
 - October 2014 – discussed ‘loophole’ of single-family homes not requiring panther mitigation, as well as the idea of creating a panther ‘Impact Fee’ to help pay for improved wildlife movement infrastructure. Also discussed trigger for trip-generating projects through an impact fee, private initiatives, or regulatory mechanism.
 - January 2015 – similar ideas discussed by SubTeam during John Wrublik presentation about federal process.
 - March 2016 – discussed ideas at all levels (local, state, federal, private), including local impact fees, Section 7 in-lieu fee type program, and/or improved mechanism with USFWS review of traffic-generating projects.
- Local impact fee idea could be shared with counties when the hotspots letter is sent out. Don Scott stated that increased local impact fee may be difficult to get implemented.
- Nancy brought up bridge replacement projects in Collier County.
- A smaller task force will work on these concepts and bring back to the larger SubTeam. Brent, Amber, Nancy, and Don are interested to participate on the brainstorming.

Cost Surface Model

- Dan to incorporate existing crossings into his cost-surface modeling.
- Dan asked about wildlife crossings north of the Caloosahatchee River (SR80 crossing at C2 crossing starting construction in January, US17 bridge structure, SR60, SR70).
- Dan asked for input from the SubTeam about whether all bridges/structures should get the same value in the model. Brent stated that there should be similar value to panther crossings. Amber said that they could receive similar value, except if they are in an open area (e.g. ranch cross-overs, as opposed to riparian systems).

- \$20,000 was awarded to Dan Smith and Florida Wildlife Federation to compare the various animal movement models. . They will be reviewing the Beier corridor designer and circuit scape systems.

Minutes

- SubTeam members will review August meeting minutes and provide any necessary edits to Amber by Tuesday 11/22.

Next Meeting

- Scheduled for 01/26 in Bartow.
- Agenda items likely to include RADS recommendation, funding working group report, finalizing hotspots.