## Panther Recovery Implementation Team (PRIT) Transportation SubTeam Meeting Minutes

July 8, 2020 Webinar

Attendees:
Meredith Budd
Katasha Cornwell
Amber Crooks, Chair
Elizabeth Fleming, Core Team Liaison
Terry Gilbert
Donald Scott
Brent Setchell
David Shindle, USFWS Liaison
Dan Smith
John Wrublik

Kristin Caruso Nikki Cribbs Chris Dailey William Freund Olena Leskova Nicole Monies Robert Mrykalo Lauren Peters Denise Rach Ben Shepherd

David Telesco

- Communications: FWS Staff Liaison David Shindle
  - PRIT core team on pause due to panther species status assessment and review.
     FWS had recommendation team meeting at regional level in terms of any recommendation changes resulting. They are going to be putting together a 5-year review portion as well.
  - o Service is working on all things panther, consumed with Eastern Collier HCP.
  - Meredith asked what the timeframe for wrapping up SSA. David said there is no specific timeline. Timeline is out of his control.
  - Elizabeth asked if SSA is going to be concurrent with 5-year review or will they be two separate processes? David says he believes they will be released together.
  - O Amber asked about public comment window. David said public commenting will come if there is a proposed rule published through the federal register notice. Release of SSA doesn't require public commenting. Habitat assessment changes won't be a part of the SSA. Once the 5-year review is completed and HCP review is completed, then Service will revise habitat methodology, as has been planned.

- Communications: Core Team Liaison Elizabeth Fleming
  - PRIT TS working on finalizing our reports on updating Southwest Florida Hotspots and I-4 report.
- Sharing of Information amongst SubTeam members
  - Wildlife Crossings manual meeting end of April, discussed format. Next meeting is end of July.
  - SR29 widening project EAG FDOT staff person had provided Meredith information as to the following: "We have not yet set the date for the EAG meeting. Our preference is to have the meeting in person and we were hoping to have direction about that now, but we will also be looking into virtual options. We should be notifying the EAG of a date no later than the end of July (FDOT is aiming for early September). The study is anticipated to be completed tentatively around the Fall of 2022. Please note that this timeframe is subject to change based on our ability to hold public meetings/hearings given COVID-19 considerations and the availability of future funding."
  - SR29 speed zone Meredith and Brent were looking at the newest hot spot report segments and noticed that there is a gap in the current reduced speed zone for panthers. They are pursuing an extension of the speed zone. Initial feedback from FDOT traffic operations is skepticism that the signs work because cars don't seem to slow down. Perhaps a speed feedback sign might be more effective and FDOT is looking into it. Meredith will reach out to landowners re future land use near Jerome.
  - O LRTPs Amber stated that Collier County is having meetings in regards to their 2045 LRTP. Don gave some information about the LRTP process. He stated that all LRTPs are due by the end by the year and individuals on the SubTeam may be interested in roadways in all of these plans and suggested we take a look at the upcoming cost feasible plans. Virtual workshop on July 29 for Collier LRTP.
  - Martin 710 Meredith shared that a panther was killed on highway 710 near a structure. Looking at fencing to improve functionality. The area is quite wet. Lots of limpkin use. Considering longer fencing, but also wondering if longer fencing may cut off the drier areas where panthers would cross. The crossing was constructed for other target species, not necessarily panthers. Utility corridor close by is drier and likely to be the preferred area for panthers to cross the roadway. Katasha recommended that Meredith work with District 4 on the fencing. F Stop Foundation is planning to deploy cameras there in the future.
  - O I-75 managed lanes and I-4 managed lane studies Amber inquired about the next steps and proposed public meetings for these projects. A FDOT staff member said that I-75 Lee/Collier and I-75 Sarasota managed lane studies are considered cost feasible for 2045. Lauren Peters of FDOT suggested that interested parties get in touch with FDOT's Joshua Jester.
  - o Eastern Collier HCP No update at this time.
  - MCORES Don Scott left the call for this update by Elizabeth. Southwest-Central Connector task force talked about avoidance and attraction areas at recent meeting. They have also had meetings re: technology, broadband. Task force reports due to the governor and legislature on Nov 15. FDOT is hoping to have consensus on the recommendations and report by the task forces ('live with it and

not openly oppose it'). There can be minority opinions. Guiding principles being established.

- Other items not on the agenda:
  - INVEST bill. Elizabeth mentioned that legislation to protect wildlife corridors (INVEST) passed the House. May have resistance from the Senate. Bipartisan effort. \$300 million dollars for projects to reduce wildlife-vehicle collisions nationally. Emphasis on corridors and crossings. Florida Congressman Buchanan was a cosponsor. She had asked FDOT to provide information and example lists of projects. Elizabeth will share more info on the bill to share with the SubTeam.
  - Southwest Protection Feature wildlife crossings near Picayune. Meredith saw notice from FDEP of their intent to issue the permit regarding the Southwest Protection Feature of the Picayune Strand Restoration Project. Culverts will be permitted in a separate process. NGOs have advocated for crossing structures on US41 near Collier Seminole State Park in an area identified by our SubTeam as a panther collision hotspot as part of the culvert project. ACOE is having a call to discuss a panther crossing.
  - Panther use of culverts on I-75 Alligator Alley. William Freund spoke about the panther documented using the culvert at MM 95.1 on I-75 Alligator Alley. The panther was going north to south. FWC data documented that panther used westerly most culvert. Not on camera yet. Brent mentioned I-75 resurfacing project could be an opportunity to make improvements to canal portion. Resurfacing is in design currently.

## Finalizing report

- o I-4 report.
  - Dan notes that one of the I-4 labels on the map covered up one of the proposed wildlife crossing locations. Ben can make the change to the maps.
- Hot spots report.
  - Redo Brent's edits on the Notice page and resend.
- o No other SubTeam members had any other edits or need for more time to review.
- Elizabeth said that she could send I-4 report to Larry and David Shindle for distribution to the Core Team. For the hotspots report, in the past we have sent the final report and recipient list; Amber will work with Elizabeth and Meredith to update the recipient list.
- Presentation about bear-vehicle collisions David Telesco, FWC
  - o Amber and Elizabeth stated that the bear can be a surrogate for the panther in areas where panther data is not available.
  - o Frequent and common areas for bears is about 50% of the state. Since 1976, there have been about 4,000 total collisions. Since 2012 about 230 a year. Most in frequent/common range.
  - o Bear collisions can result in a lot of damages and some injuries, \$32 million in damages.

- FWC comments on FDOT road development projects and provide technical assistance. They do periodic assessment of vehicle-bear mortality hotspots.
- FWC looking at ways to modify existing bridges to provide wildlife crossings. Dave said that fencing is needed for bear crossings to be effective. Even if bears see the crossing, they can wonder and cross at the roads instead.
- Specs for bear fencing is typically 8-10 feet high with outrigger and buried apron.
- Central Florida collisions are 50% of roadkill. FWC used hot spot analysis tool and kernel density estimation (1km green to red, 5km blue). Looked at 2003 to 2007, and 2008 to 2012. Recommendation for improvements or new roads to add underpasses and/or additional crossing signs. Over time hot spots can change and should be able to add crossing signs.
- Studies- 2014 report to FDOT re crossing and underpasses in relation to hotspots & 2019 report study based on Eslinger and Morgan. Of the hot spots that were identified, they intersected with 376 bridges. About 90% is within FDOT Districts 2, 3, and 5.
- O Dimensions of the crossing opening = width x height/length > 0.75. Fence length range from 500 meters to 6.7 miles. Habitat change could also influence.
- o Brent asked about vertical clearance and water levels in bridges. Dave said they looked at dimensions of bridge but not the water levels information. FWC may not know that, further investigation would be needed. Didn't look at substrate either.
- O Amber stated that the SubTeam had done a hotspot modeling for panthers, it seems like our methodology different than the one FWC used. She didn't realize that the FWC model for bears included south Florida. So it would be interesting to compare the bear hot spot model to the SubTeam panther hot spot model.
- O Dan said he researched similar issues for FDOT from 1998-2003; several reports were produced from that work. Rip rap on the SR44 bridge at Blackwater Creek need to be fixed to be more traversable. Fisherman regularly use this area says Dan. FWC doesn't necessarily know the local conditions of each of these bridges. Dan mentioned that UCF has contracted with FDOT/FWF to create a design manual for bridges and structures, statewide collision hotspots (for all wildlife), and inventory/assessment of existing structures. The TAG for the project could use FWC's work in the manual.

## Least Cost Pathway - Dan

- For the cost surface values, used 1) 2010 Onorato et al panther habitat selection results from GPS location data, 2) the 2012 USFWS panther habitat assessment methodology, and 3) a hybrid version of these two.
- O Dan modeled six different pathway alternatives for each source/destination.
  - First example: OK Slough to Fisheating Creek. LCPs fall within the dispersal zone.
  - Second example: Fisheating Creek to Avon Park. Two least cost pathways crossed 70, but then split into separate directions (one west and one east around large lake). One pathway may be following a railroad corridor.
     PD&E for SR70 currently underway. FDOT looking at a crossing but

- unsure of the exact location selected. Considering replacement/redesigned structure at a cross drain close to the lake.
- Third example: Fisheating Creek to Myakka. All paths seem to converge within Babcock area. Thornton Branch includes 4 of 6 pathways where LCP models chose to use bridge in that area at US17.
- o Dan is going to share the remainder of the pathways early August.
- Amber will resend the intro she drafted to Dan; delegating drafting of the report will be via email to the working group. The format can be inspired by Swanson et al. report. Dan would have to do methodology section.
- Circuitscape model and solar arrays presentation by Olena Leskova
  - Olena used habitat suitability modeling based on random forest model (Frakes and Knight, in preparation), as well as Circuitscape 4.0. LCP and Circuitscape are related. LCP expresses movement, while circuit theory expresses movement as probability of random walk between two areas. Probability of presence and probability of movement discussed in her study.
  - Her focal areas were Big Cypress, Osceola, Big Bend, JW Corbett, Ocala, Babcock-Fisheating Creek.
  - Results: the mean probability of panther presence 'P' deceased by 0.03, as well as 18km of forest edge lost from 26,687 acres of solar arrays studied.
  - o In the Circuitscape map, green areas have high probability of movement.
  - Elizabeth asked about solar sites in Hendry County since FP&L is incorporating fencing to allow movement of panthers and prey through them. Solar Hammock, Blue Heron, Ghost Orchid, southern site. Olena responded that these sites did not rank highly on her model.
  - On asked what land cover source she used. Olena used SFWMD 2010 land cover. The first facility installed was 2010. How long did it take to set up Circuitscape model? Olena said that the resolution raster size is 1 sq km. so it didn't take long to run. Dan mentioned the Paul Beyer *Corridor Designer* as another alternative spatial modeling program.
  - Amber said what was striking in the Circuitscape model is how many more linkages are on the east coast, and how limited the corridors are on the west side between Babcock and Green Swamp where the SubTeam has been focused. Dan responded that the model appears to have selected (and assigned higher scores to) the expansive herbaceous marsh areas along the St. Johns River in the upper St. Johns River Basin. This is curious because the "non-forested marsh" class is not a highly preferred habitat for panthers based on the 2010 Onorato et al paper or the USFWS PHU 2012 methodology.
- Public comment none
- Amber will send out a Doodle poll for the working group meeting to discuss improvements on local roads.
- Next meeting is scheduled for October 9
  - Nicole says FDOT looking into RADS and unsure about what they'll have to present in October but could provide an update then.

- Elizabeth suggested we add adjacent roadways/roadways between south Florida and I-4 onto the next agendas
- o Tom Hoctor Florida Ecological Greenways Network
- Ricardo Alvarez or other from Rural and Family Lands program to speak about opportunities for preserving agricultural areas between south-central Florida and areas north I-4, particularly highlighting the region from eastern Hillsborough/Pasco counties south to Caloosahatchee River