

February 18, 2020



AGENDA ITEM 4 B

CRTPA SAFETY TARGETS AND PERFORMANCE MEASURES

TYPE OF ITEM: Consent

STATEMENT OF ISSUE

This item seeks adoption of the 2020 Safety Performance Targets for the Capital Region Transportation Planning Area (CRTPA) for the following five (5) safety performance measures adopted by the Federal Highway Administration (FHWA) for all public roads:

1. Number of fatalities;
2. Rate of fatalities per 100 Million Vehicle Miles Traveled (VMT);
3. Number of serious injuries;
4. Rate of serious injuries per 100 Million VMT; and
5. Number of non-motorized fatalities and non-motorized serious injuries.

CRTPA COMMITTEE ACTIONS

On February 4, the Technical Advisory Committee (TAC) met and recommended approval of the CRTPA staff recommended safety targets for the five safety performance measures. The Citizen's Multimodal Advisory Committee (CMAC) did not have a quorum present; however, the committee discussed the item and expressed a desire to see the safety measure targets established in a manner that reflect a desired decline in incidents versus the current 5-year average. Additionally, members expressed interest in the inclusion of data related to e-scooters.

RECOMMENDED ACTION

Option 1: Adopt the CRTPA staff recommended Safety Targets for 2020.

BACKGROUND

Pursuant to the FHWA, Transportation Performance Management is defined as "a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals. Transportation Performance Management:

- Is systematically applied, a regular ongoing process

- Provides key information to help decision makers to understand the consequences of investment decisions across transportation assets or modes
- Improving communications between decision makers, stakeholders and the traveling public
- Ensuring targets and measures are developed in cooperative partnerships and based on data and objective information”

The Moving Ahead for Progress in the 21st Century Act (MAP-21, adopted July 6, 2012) requires performance management in seven (7) areas: **safety**, pavement condition, highway performance, bridge condition, freight movement, traffic congestion, and on-road mobile sources. Relatedly, MAP-21 created the National Highway Performance Program (NHPP) to be administered by the FHWA. MAP-21 notes that “Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the Federal aid highway program, and improving project decision making through performance-based planning and programming.”

With regards to **safety** (the first areas of performance management to go into effect), beginning in 2018, Florida MPOs (such as the CRTPA) were required to annually adopt the following five (5) safety performance measures for all public roads:

1. Number of fatalities;
2. Rate of fatalities per 100 Million Vehicle Miles Traveled (VMT);
3. Number of serious injuries;
4. Rate of serious injuries per 100 Million VMT; and
5. Number of non-motorized fatalities and non-motorized serious injuries.

State Department of Transportation agencies (such as the Florida Department of Transportation (FDOT)) are required to establish statewide targets and MPOs have the option to support such targets or adopt their own. In 2017 (prior to the initiation of the mandate that MPOs such as the CRTPA annually adopt safety performance measures), the FDOT adopted a target of “Zero” for the five (5) safety performance measures adopted by the Federal Highway Administration (FHWA) for all public roads.

CRTPA Safety Measures

On January 16, 2018, the CRTPA adopted the first of its annual targets for the safety measures. The CRTPA’s adopted targets were developed from data provided to the agency from FDOT and FHWA that were based upon an average result for each performance measure for the most recent five-years of data (2012 – 2016). Each average was used as the target for each safety performance measure.

Last year (2019) was the second year in which the CRTPA adopted its annual safety performance standards with the adopted 2019 safety targets being developed in the same manner as in 2018, using updated five-year data (2013-2017). The adopted 2019 safety performance standards were slightly lower than those adopted in 2018 and, as noted in the agenda item, “a fluctuation from year

to year is to be expected due to the use of newly updated information.” The following provides the adopted 2019 CRTPA Safety Performance Measures:

ADOPTED 2019 Safety Performance Measures	Target and Performance Measure
Number of fatalities	54
Rate of fatalities per 100 Million Vehicle Miles Traveled (VMT)	1.203
Number of serious injuries	258
Rate of serious injuries per 100 Million VMT	5.842
Number of non-motorized fatalities and non-motorized serious injuries	43.8

2020 Proposed Safety Performance Measures

This year’s (2020) proposed safety targets were developed in a manner consistent with the last two-years and reflect use of the updated five-year data from 2014-2018 (provided as **Attachment 1**). The proposed measures are as follows:

2020 Safety Performance Measures	Target and Performance Measure
Number of fatalities (1)	58
Rate of fatalities per 100 Million Vehicle Miles Traveled (VMT) (2)	1.273
Number of serious injuries (3)	256
Rate of serious injuries per 100 Million VMT (4)	5.684
Number of non-motorized fatalities and non-motorized serious injuries (5)	42.2

DATA SOURCES: fatality and serious injury counts from Florida Dept. of Transportation (FDOT) State Safety Office's Crash Analysis Reporting (CAR) database as of November 25, 2019:

(1) The average number of fatalities per year is the sum of the annual total fatalities for each year in the range divided by 5, to one decimal place. Fatalities are individuals listed on a Florida Traffic Crash Report (FTCR) form with injury code “5” – fatal (within 30 days). (2) The average fatality rate is an average of the yearly rate figures for the years in the range, to three decimal places. Each yearly rate is calculated by dividing the total number of fatalities for the year by the total traffic volume for the year. Traffic volume is expressed in 100 Million Vehicle-Miles and is the Daily Vehicle-Miles Traveled (sum for the region of the counts of vehicles per day times the length of the segments associated with the traffic) times the number of days in the year, divided by 100,000,000. This yields an annual volume of Vehicle-Miles. The number of fatalities divided by the traffic volume is the annual fatality rate. This measure averages the five annual rates within the measurement window and does NOT use the cumulative five-year fatalities over the cumulative five-year traffic volume. (3) The average number of serious injuries per year is the sum of the annual total serious injuries for each year in the range divided by 5, to one decimal place. Serious injuries are individuals listed on an FTCR form with injury code “4” – incapacitating. (4) The

average serious injury rate is an average of the yearly rate figures for the years in the range, to three decimal places. Each yearly rate is calculated by dividing the total number of serious injuries for the year by the total traffic volume for the year. See (3) above for an explanation of traffic volume. The same traffic volume figure is used here in the same way. (5) The average number of combined fatalities and serious injuries for bicyclists and pedestrians is per year is the sum of the annual total bicyclist and pedestrian fatalities and total bicyclist and pedestrian serious injuries for each year in the range divided by 5, to one decimal place. Bicyclist and pedestrian fatalities and serious injuries are individuals listed on an FPCR form as Non-Motorist with a Non-Motorist Description code of "01" (pedestrian), "02" (other pedestrian (wheelchair, person in a building, skater, pedestrian conveyance, etc.)), "03" (bicyclist) or "04" (other cyclist) and with injury code "5" – fatal (within 30 days) or injury code "4" – incapacitating.

With regards to a comparison of this year's proposed 2020 Safety Performance Measures with those adopted in 2019:

- The number of fatalities *increased* (from 54 to 58)
- The rate of fatalities *increased* (from 1.203 to 1.273)
- The number of serious injuries *decreased* (from 258 to 256)
- The rate of serious injuries *decreased* (from 5.842 to 5.684)
- The number of non-motorized fatalities and serious injuries *decreased* (from 43.8 to 42.2)

Analysis

Due to the broad nature of transportation performance measures, the ability to effectuate change requires a number of actions and improvements over time. To that end, the CRTPA's Transportation Improvement Program (TIP) includes a discussion of such measures and actions that the agency is pursuing to improve safety. As noted in the adopted FY 2020 – FY 2024 TIP:

"The TIP considers potential projects that fall into specific investment programs established by the MPO. For the CRTPA this includes safety programs and policies such as:

- CRTPA participation in, and monitoring of, the region's four (4) Community Traffic Safety Teams;
- Bi-monthly safety coordination meetings held with FDOT District 3;
- CRTPA Urban Attributable (SU) funding guidance, adopted in November 2017, identifying explicit funding for safety projects;
- CRTPA review, in coordination with FDOT and local transportation partners, identifying opportunities for inclusion of safety improvements in near-term resurfacing projects;
- Congestion Management Plan Update that includes a focus on the implementation of safety projects. Implementation of infrastructure projects that improve regional safety including addition of enhanced lighting at key intersections to improvement pedestrian safety and access management improvements to address roadway safety.

The TIP includes specific investment projects that support all of the CRTPA's goals including safety, using a prioritization and project selection process. The TIP prioritization process evaluates projects that have an anticipated effect of reducing both fatal and injury crashes. The CRTPA's goal of reducing fatal and serious injury crashes is linked to this investment plan and the process used in prioritizing the projects is consistent with federal requirements."

RECOMMENDED ACTION

Option 1: Adopt the CRTPA staff recommended Safety Targets for 2020.
(Recommended)

Option 2: CRTPA Board Discretion.

ATTACHMENT

Attachment 1: FDOT 2018 Safety Data

MPO/TPO	Average Annual Fatalities ¹											Average Annual Serious Injuries ²											Average Annual Fatality Rates ³											Average Annual Serious Injury Rates ⁴											Average Annual Pedestrian and Bicyclist Fatalities and Serious Injuries ⁵										
	2009-13		2010-14		2011-15		2012-16		2013-17		Preliminary 2014-18		2009-13		2010-14		2011-15		2012-16		2013-17		Preliminary 2014-18		2009-13		2010-14		2011-15		2012-16		2013-17		Preliminary 2014-18		2009-13		2010-14		2011-15		2012-16		2013-17		Preliminary 2014-18								
	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ	Average	%Δ											
Space Coast TPO	63.8	66.2	3.8%	69.6	5.1%	74.8	7.5%	81.6	9.1%	83.0	1.7%	587.0	607.4	3.5%	601.4	-1.0%	630.8	4.9%	616.2	-2.3%	598.8	-2.8%	1,052	1,100	4.6%	1,159	5.4%	1,218	5.1%	1,297	6.5%	1,276	-1.6%	9,666	10,097	4.5%	10,033	-0.6%	10,363	3.3%	9,897	-4.3%	9,279	-6.2%	79.8	82.2	3.0%	86.6	5.4%	90.2	4.2%	91.0	0.9%	88.8	-2.4%
Charlotte County-Punta Gorda MPO	22.8	21.0	-7.9%	21.4	1.9%	22.4	4.7%	24.2	8.0%	25.2	4.1%	164.2	149.2	-9.1%	134.6	-9.8%	126.8	-5.8%	113.0	-10.9%	109.2	-3.4%	1,048	964	-8.0%	969	0.5%	990	2.2%	1,041	5.2%	1,057	1.5%	7,555	6,864	-9.1%	6,128	-10.7%	5,668	-7.5%	4,898	-13.6%	4,600	-6.1%	24.2	23.0	-5.0%	21.4	-7.0%	20.4	-4.7%	20.6	1.0%	19.8	-3.9%
Broward MPO	178.4	175.0	-1.9%	183.0	4.6%	199.0	8.7%	206.0	3.5%	211.8	2.8%	2,080.6	2,003.8	-3.7%	1,888.6	-5.7%	1,776.6	-5.9%	1,635.6	-7.9%	1,483.6	-9.3%	1,099	1,074	-2.3%	1,109	3.3%	1,201	8.3%	1,225	2.0%	1,239	1.1%	12,801	12,277	-4.1%	11,446	-6.8%	10,801	-5.6%	9,792	-9.3%	8,718	-11.0%	351.4	350.4	-0.3%	341.2	-2.6%	352.0	3.2%	333.2	-5.3%	318.8	-4.3%
Okaloosa-Walton TPO	See individual counties below											See individual counties below											See individual counties below											See individual counties below																					
Gainesville MTPO	See individual counties below											See individual counties below											See individual counties below											See individual counties below																					
Hernando/Citrus MPO	50.6	47.0	-7.1%	49.2	4.7%	49.8	1.2%	54.2	8.8%	59.0	8.9%	448.4	428.8	-4.4%	445.0	3.8%	461.2	3.6%	482.4	4.6%	503.4	4.4%	1,527	1,416	-7.3%	1,471	3.9%	1,464	-0.5%	1,547	5.7%	1,629	5.3%	13,548	12,925	-4.6%	13,329	3.1%	13,560	1.7%	13,794	1.7%	13,928	1.0%	34.4	36.2	5.2%	41.0	13.3%	43.2	4.4%	43.0	-0.5%	44.8	4.2%
Hillsborough County MPO	157.6	161.0	2.2%	168.4	4.6%	183.6	9.0%	187.4	2.1%	189.8	1.3%	2,066.2	1,921.6	-7.0%	1,752.0	-8.8%	1,618.0	-7.6%	1,535.6	-5.1%	1,407.6	-8.3%	1,245	1,266	1.7%	1,309	3.4%	1,398	6.8%	1,392	-0.4%	1,377	-1.1%	16,296	15,106	-7.3%	13,650	-9.6%	12,430	-8.9%	11,509	-7.4%	10,272	-10.7%	254.8	249.6	-2.0%	246.0	-1.4%	242.6	-1.4%	236.4	-2.6%	228.6	-3.3%
Indian River County MPO	See individual county below											See individual county below											See individual county below											See individual county below																					
North Florida MPO	168.4	172.8	2.6%	183.4	6.1%	201.4	9.8%	212.6	5.6%	218.6	2.8%	1,261.0	1,299.2	3.0%	1,341.2	3.2%	1,371.2	2.2%	1,328.4	-3.1%	1,200.6	-9.6%	1,112	1,136	2.2%	1,188	4.6%	1,272	7.1%	1,305	2.6%	1,309	0.3%	8,329	8,547	2.6%	8,716	2.0%	8,728	0.1%	8,223	-5.8%	7,237	-12.0%	174.2	181.8	4.4%	191.8	5.5%	196.2	2.3%	191.0	-2.7%	183.8	-3.8%
Polk TPO	90.4	94.2	4.2%	99.8	5.9%	108.4	8.6%	113.8	5.0%	120.2	5.6%	566.4	539.0	-4.8%	499.6	-7.3%	480.6	-3.8%	484.2	0.7%	497.4	2.7%	1,520	1,541	1.4%	1,579	2.5%	1,645	4.2%	1,651	0.4%	1,655	0.2%	9,503	8,840	-7.0%	7,959	-10.0%	7,389	-7.2%	7,085	-4.1%	6,868	-3.1%	63.0	65.2	3.5%	63.6	-2.5%	67.4	6.0%	70.6	4.7%	77.8	10.2%
Lee County MPO	75.2	75.6	0.5%	81.0	7.1%	87.0	7.4%	97.0	11.5%	97.8	0.8%	456.6	458.0	0.3%	460.4	0.5%	498.8	8.3%	516.0	3.4%	528.4	2.4%	1,164	1,140	-2.1%	1,187	4.1%	1,229	3.5%	1,329	8.1%	1,294	-2.6%	7,067	6,921	-2.1%	6,786	-2.0%	7,098	4.6%	7,078	-0.3%	6,981	-1.4%	76.8	80.0	4.2%	84.0	5.0%	91.0	8.3%	95.2	4.6%	94.6	-0.6%
Martin MPO	26.2	23.6	-9.9%	24.2	2.5%	25.4	5.0%	25.0	-1.6%	27.6	10.4%	124.6	116.4	-6.6%	107.0	-8.1%	102.6	-4.1%	102.8	0.2%	109.0	6.0%	1,273	1,162	-8.7%	1,186	2.1%	1,246	5.1%	1.2	-3.7%	1,281	6.8%	6,054	5,739	-5.2%	5,269	-8.2%	5,099	-3.2%	5,005	-1.8%	5,100	1.9%	17.6	17.4	-1.1%	16.2	-6.9%	14.0	-13.6%	14.6	4.3%	17.0	16.4%
Miami-Dade Urbanized Area MPO	242.8	246.6	1.6%	265.0	7.5%	273.6	3.2%	284.8	4.1%	304.2	6.8%	1,959.0	1,992.0	1.7%	1,992.4	0.0%	1,895.4	-4.9%	1,807.2	-4.7%	1,743.0	-3.6%	1,263	1,284	1.7%	1,378	7.3%	1,416	2.8%	1,452	2.5%	1,528	5.2%	10,206	10,383	1.7%	10,387	0.0%	9,859	-5.1%	9,251	-6.2%	8,770	-5.2%	411.8	425.8	3.4%	446.0	4.7%	435.8	-2.3%	426.0	-2.2%	426.8	0.2%
Collier County MPO	37.2	37.2	0.0%	38.8	4.3%	38.0	-2.1%	36.2	-4.7%	38.4	6.1%	184.0	174.0	-5.4%	175.2	0.7%	177.2	1.1%	186.2	5.1%	215.2	15.6%	1,169	1,160	-0.8%	1,184	2.1%	1,125	-5.0%	1,038	-7.7%	1,064	2.5%	5,790	5,445	-6.0%	5,388	-1.0%	5,252	-2.5%	5,263	0.2%	5,895	12.0%	37.2	38.6	3.8%	37.8	2.6%	40.0	6.4%	39.2	-2.0%	42.0	7.1%
Ocala/Marion County TPO	61.8	60.6	-1.9%	60.0	-1.0%	61.6	2.7%	66.4	7.8%	74.0	11.4%	423.0	359.4	-15.0%	326.8	-9.1%	327.8	0.3%	321.4	-2.0%	370.0	15.1%	1,538	1,507	-2.0%	1,475	-2.1%	1,478	0.2%	1,544	4.5%	1,679	8.7%	10,501	8,952	-14.8%	8,069	-9.9%	7,894	-2.2%	7,511	-4.9%	8,359	11.3%	41.8	39.0	-6.7%	37.6	-8.2%	41.2	3.4%	46.0	8.0%		
METROPLAN Orlando	208.8	210.6	0.9%	218.4	3.7%	226.0	3.5%	245.2	8.5%	261.2	6.5%	1,539.6	1,893.0	23.0%	2,318.6	22.5%	2,639.2	13.8%	2,827.8	7.1%	2,810.4	-0.6%	1,049	1,049	0.0%	1,073	2.3%	1,089	1.5%	1,136	4.3%	1,166	2.6%	7,748	9,401	21.3%	11,309	20.3%	12,624	11.6%	13,176	4.4%	12,730	-3.4%	261.2	300.0	14.9%	341.8	13.9%	375.6	9.9%	393.8	4.8%	399.4	1.4%
Bay County TPO	24.0	24.4	1.7%	27.2	11.5%	30.0	10.3%	29.4	-2.0%	31.4	6.8%	257.4	250.4	-2.7%	255.2	1.9%	234.6	-8.1%	229.4	-2.2%	216.2	-5.8%	1,322	1,340	1.4%	1,476	10.1%	1,596	8.1%	1.53	-4.1%	1,611	5.3%	14,172	13,761	-2.9%	13,897	1.0%	12,559	-9.6%	12,019	-4.3%	11,101	-7.6%	29.8	29.4	-1.3%	34.4	17.0%	37.6	9.3%	36.6	-2.7%	37.4	2.2%
Pasco County MPO	69.4	67.8	-2.3%	66.8	-1.5%	71.4	6.9%	78.0	9.2%	87.0	11.5%	855.4	871.0	1.8%	933.0	7.1%	1,032.6	10.7%	1,145.6	10.9%	1,127.4	-1.6%	1,735	1,660	-4.3%	1,592	-4.1%	1,661	4.3%	1,738	4.6%	1,860	7.0%	21,416	21,279	-0.6%	22,076	3.7%	23,905	8.3%	25,776	7.8%	24,446	-5.2%	105.6	109.6	3.8%	109.0	-0.5%	115.6	6.1%	121.6	5.2%	120.0	-1.3%
Florida-Alabama TPO	See individual counties below											See individual counties below											See individual counties below											See individual counties below																					
Pinellas County MPO	99.0	101.4	2.4%	102.8	1.4%	105.6	2.7%	109.2	3.4%	116.8	7.0%	1,270.0	1,217.8	-4.1%	1,194.6	-1.9%	1,175.0	-1.6%	1,120.4	-4.6%	1,074.0	-4.1%	1,229	1,272	3.5%	1,296	1.9%	1,308	0.9%	1,328	1.5%	1,398	5.3%	15,746	15,258	-3.1%	15,068	-1.2%	14,591	-3.2%	13,670	-6.3%	12,891	-5.7%	212.4	213.8	0.7%	217.2	1.6%	220.8	1.7%	215.0	-2.6%	218.6	1.7%
Sarasota/Manatee MPO	81.0	81.6	0.7%	87.4	7.1%	99.8	14.2%	101.4	1.6%	111.8	10.3%	770.6	777.6	0.9%	906.8	16.6%	1,130.8	24.7%	1,279.0	13.1%	1,423.4	11.3%	1,103	1,104	0.1%	1,160	5.1%	1,289	11.1%	1,279	-0.8%	1,381	8.0%	10,489	10,495	0.1%	11,983	14.2%	14,499	21.0%	16,059	10.8%	17,575	9.4%	127.8	134.2	5.0%	142.8	6.4%	160.0	12.0%	166.8	4.3%	179.0	7.3%
St Lucie TPO	30.0	29.8	-0.7%	31.0	4.0%	33.6	8.4%	36.4	8.3%	37.6	3.3%	187.4	174.0	-7.2%	166.6	-4.3%	165.0	-1.0%	164.2	-0.5%	162.6	-1.0%	967	956	-1.1%	985	3.0%	1,064	8.0%	1,128	6.0%	1,130	0.2%	6,027	5,562	-7.7%	5,276	-5.1%	5,236	-0.8%	5,101	-2.6%	4,923	-3.5%	26.6	28.4	6.8%	26.8	-5.6%	24.0	-10.4%	26.4	10.0%	28.4	7.6%
Capital Region TPA	55.4	53.0	-4.3%	51.4	-3.0%	55.6	8.2%	54.2	-2.5%	57.6	6.3%	351.8	313.6	-10.9%	278.6	-11.2%	266.2	-4.5%	258.4	-2.9%	256.0	-0.9%	1,299	1,249	-3.8%	1,208	-3.3%	1,279	5.9%	1,216	-4.9%	1,273	4.7%	8,203	7,360	-10.3%	6,539	-11.2%	6,147	-6.0%	5,842	-5.0%	5,684	-2.7%	41.8	41.4	-1.0%	42.4	2.4%	44.0	3.8%	43.8	-0.5%	42.2	-3.7%
River to Sea TPO	See individual counties below											See individual counties below											See individual counties below											See individual counties below																					
Palm Beach MPO	131.4	127.0	-3.3%	139.6	9.9%	152.8	9.5%	157.8	3.3%	167.6	6.2%</																																												