2024 SAFETY PERFORMANCE MEASURES

RETURN TO AGENDA

✓	Number of Fatalities
✓	Rate of Fatalities per 100 million VMT
✓	Number of Serious Injuries
✓	Rate of Serious Injuries per 100 million VMT
✓	Number of Non-motorized Fatalities and Non-motorized Serious Injuries

Planning Partners are required to establish targets within 180 days of PennDOT setting its targets (February 27, 2025) either by agreeing to plan and program projects in support of the PennDOT targets, or by establishing their own quantifiable targets.

OPTION: MPO AGREEMENT OF STATE TARGETS

If an MPO agrees to support a State established target, the MPO would:

- Work with the State and safety stakeholders to address areas of concern for fatalities or serious injuries within the metropolitan planning area
- Coordinate with the State and include the safety performance measures and the State's targets for those measures in the Metropolitan Transportation Plan (MTP)
- Integrate into the MTP process, the safety goals, objectives, performance measures and targets described in other State safety transportation plans and processes such as applicable portions of the HSIP and the SHSP
- Include a description in the Transportation Improvement Program (TIP) of the anticipated effect of the TIP toward achieving the safety targets in the MTP and linking investment priorities in the TIP to those targets

OPTION: MPO ESTABLISHMENT OF ITS OWN TARGETS

If an MPO establishes its own target, the MPO would:

- Estimate vehicles miles traveled (VMT) and establish safety targets for all public roads in the metropolitan planning area in coordination with the State
- Include the safety performance measures and the MPO's safety targets for those measures in the MTP
- Integrate into the MTP process, the safety goals, objectives, performance measures and targets described in other State safety transportation plans and processes such as applicable portions of the HSIP and the SHSP
- Include a description in the TIP of the anticipated effect of the TIP toward achieving the safety targets in the MTP and linking investment priorities in the TIP to those targets

VEHICLE MILES TRAVELED (VMT)

- First obtain the most recent 5 years (2019-2023) daily VMT from PennDOT's Highway Statistics website (PennDOT Highway Statistics).
  - Planning Partner VMT: County & District Measures (*Travel – Jurisdiction*)
- Calculate the Annual VMT for each year by multiplying the Daily VMT x 365.
- Then calculate the projected annual VMT for 2024 and 2025 by using the same number as the most recent completed year (2023) as our future VMT is estimated to hold level over next few years.
- Next calculate the 5-year average for the most recent 5 years (2019-2023).
- Then calculate the 5-year projected average for 2024 using the four most recent completed VMT annual years (2020-2023) and first projected year (2024). Also calculate 5-year projected average for 2025 using the three most recent completed VMT annual years (2021-2023) and both projected years (2024-2025). These numbers shall be rounded to 2 decimal places.

NUMBER OF FATALITIES

2% Annual Fatality Reduction

- Obtain annual fatalities for the most recent 5 years (2019-2023) from PA's Crash Information Tool.
- Take most recent completed crash data year (2023) fatalities and multiply by 0.98 (2% reduction). This will the fatality projection for 2024. Then multiply the 2024 projection by 0.98 to establish the following year (2025) projection. These numbers shall also be rounded to 1 decimal place.
- Calculate the 5-year average for the most recent 5 years (2019-2023). *This 5-year average rounded to 1 decimal place is the baseline for the number of fatalities.*
- Calculate the 5-year projected average for 2024 using the four most recent years (2020-2023) and first projected year (2024). Also calculate the 5-year projected average for 2025 using the three most recent years (2021-2023) and both projected years (2024 & 2025). These numbers shall be rounded to 1 decimal place. *This 5-year projected average (2021-2025) rounded to 1 decimal place is the official performance target for the number of fatalities.*

RATE OF FATALITIES PER 100 MILLION VMT

2% Annual Fatality Reduction & Future VMT estimated to hold level

- Calculate the most recent 5-year average fatality rate by multiplying (2019-2023) 5-year average fatalities x 100 million then divide by (2019-2023) 5-year average VMT. *This 5-year average fatality rate rounded to 3 decimal places is the baseline for the Rate of Fatalities per 100 million VMT .*
- Calculate the projected 5-year average fatality rate by multiplying the 2020 through 2024 projected 5-year average fatalities x 100 million then divide by the 2020 through 2024 projected 5-year average VMT.

- Calculate the next projected 5-year average fatality rate by multiplying the 2021 through 2025 projected 5-year average fatalities x 100 million then divide by the 2021 through 2025 projected 5-year average VMT. *This projected 5-year average fatality rate (2021-2025) rounded to 3 decimal places is the official performance target for the Rate of Fatalities per 100 million VMT.*

NUMBER OF SERIOUS INJURIES

Annual Serious Injuries Holding Level

- Obtain annual serious injuries for the most recent 5 years (2019-2023) from PA's Crash Information Tool.
- Take most recent year 2023 serious injuries and use this same number for the 2024 and 2025 projection as the goal is to hold level. These numbers shall be rounded to 1 decimal place.
- Calculate the 5-year average for the most recent 5 years (2019-2023). *This 5-year average rounded to 1 decimal place is the baseline for the number of serious injuries.*
- Calculate the 5-year projected average for 2024 using the four most recent years (2020-2023) and 2024 projected year. Also calculate the 5-year projected average for 2025 using the three most recent years (2021-2023) and both projected years (2024 & 2025). These numbers shall be rounded to 1 decimal place. *This 5-year projected average (2021-2025) rounded to 1 decimal place is the official performance target for the number of serious injuries.*

RATE OF SERIOUS INJURIES PER 100 MILLION VMT

Annual Serious Injuries Holding Level & Future VMT estimated to hold level

- Calculate the most recent 5-year average serious injury rate by multiplying (2019-2023) 5-year average serious injuries x 100 million then divide by (2019-2023) 5-year average VMT. *This 5-year average serious injury rate rounded to 3 decimal places is the baseline for the Rate of Serious Injuries per 100 million VMT .*
- Calculate the projected 5-year average serious injury rate by multiplying the 2020 through 2024 projected 5-year average serious injuries x 100 million then divide by the 2020 through 2024 projected 5-year average VMT.

- Calculate the next projected 5-year average serious injury rate by multiplying the 2021 through 2025 projected 5-year average serious injuries x 100 million then divide by the 2021 through 2025 projected 5-year average VMT. *This projected 5-year average serious injury rate (2021-2025) rounded to 3 decimal places is the official performance target for the Rate of Serious Injuries per 100 million VMT.*

NUMBER OF NON-MOTORIZED FATALITIES & SERIOUS INJURIES

2% Annual Non-Motorized Fatality Reduction & Annual Non-Motorized Serious Injuries Holding Level

- Obtain annual non-motorist fatalities and serious injuries for the most recent 5 years (2019-2023) from PA's Crash Information Tool.
- Add non-motorized fatalities and serious injuries together for each of the 5 years (2019-2023).
- Take most recent year 2023 fatalities and multiply by 0.98 to establish the 2024 projection. Also multiply the 2024 projection by 0.98 to establish the 2025 projection.
- Take most recent year 2023 serious injuries and use this same number for the 2024 and 2025 projection as the goal is to hold level for non-motorized serious injuries.
- Add the fatality and serious injury projections together for both 2024 and 2025. These numbers shall be rounded to 1 decimal place.
- Calculate the 5-year average for the most recent 5 years (2019-2023). *This 5-year average rounded to 1 decimal place is the baseline for the number of Non-motorized Fatalities and Serious Injuries.*
- Calculate the 5-year projected average for 2024 using the four most recent years (2020-2023) and first projected year (2024). Also calculate the 5-year projected average for 2025 using the three most recent years (2021-2023) and both projected years (2024 & 2025). *This 5-year projected average rounded to 1 decimal place is the official performance target for the number of Non-motorized Fatalities and Serious Injuries.*

REDUCTION BASED ON ANNUAL not 5-YEAR AVG

2% Annual Reduction Based on Most Recent Year's Actual Data

- ❑ Take most recent actual crash year and multiply by 0.98 (2% reduction) to calculate the next projected year
- ❑ Then calculate projected 5-year avg using the 4 most recent actual years and the next projected year.
- ❑ Sum these 5 years and divide by 5 ➔ *this is the new 5-year average target goal*
- ☑ This is the Method we are using

2% Reduction on the 5 Year Average

- ❑ Take the sum of the 5 years of actual data and divide by 5
- ❑ This is your actual 5-year average
- ❑ Multiply that by 0.98➔ *this is the new 5 year average target goal*
- ❑ Then multiply by 5
- ❑ Subtract the sum of the 4 most recent actual years
- ❑ This is your projected year crash target
- ❑ Not using this method

LANCASTER MPO STATE ESTABLISHED TARGETS

Performance Measure	5-year Rolling Averages		
	TARGET	ACTUAL	BASELINE
	2021-2025	2021-2025	2019-2023
Number of Fatalities	56.0		54.4
Fatality Rate	1.259		1.272
Number of Serious Injuries	250.8		239.4
Serious Injury Rate	5.639		5.599
Number of Non-motorized Fatalities and Serious Injuries	44.3		44.8

* Future VMT estimated to hold level over next few years

RETURN TO MEMO

MPO/RPO Target Setting
Enclosure
September 4, 2024

Table 1: Statewide Targets:

Performance Measure	5-year Rolling Averages		
	TARGET 2021-2025	ACTUAL 2021-2025	BASELINE 2019-2023
Number of Fatalities	1,192.8		1161.2
Fatality Rate	1.186		1.183
Number of Serious Injuries	4,832.6		4738.6
Serious Injury Rate	4.806		4.828
Number of Non-motorized Fatalities and Serious Injuries	916.8		833.4

* Future VMT estimated to hold level over next few years

Table 2: Lancaster MPO Supporting Values:

Performance Measure	5-year Rolling Averages		
	TARGET 2021-2025	ACTUAL 2021-2025	BASELINE 2019-2023
Number of Fatalities	56.0		54.4
Fatality Rate	1.259		1.272
Number of Serious Injuries	250.8		239.4
Serious Injury Rate	5.639		5.599
Number of Non-motorized Fatalities and Serious Injuries	44.3		44.8

* Future VMT estimated to hold level over next few years