



156 Water Street, Exeter, NH 03833  
 Tel. 603-778-0885 ♦ Fax: 603-778-9183  
[email@rpc-nh.org](mailto:email@rpc-nh.org) ♦ [www.rpc-nh.org](http://www.rpc-nh.org)

RPC Transportation Advisory Committee  
 December 6, 2018  
 9:00-11:00 AM  
RPC Offices  
156 Water Street, Exeter  
 (Directions on reverse)

**Paper copies of the attachments will be available at the meeting**

1. Introductions
2. Minutes of 10/25/18 TAC meeting (**Attachment #1**) — *[motion to approve]*
3. Ten Year Plan Candidate Projects List (**Attachment #2**) — *[motion to approve]* – Dave Walker
4. NHDOT Funding Proposal from October Policy Meeting (**Attachment #3**) — *[motion to support NHDOT proposal]* – Scott Bogle
5. Annual Safety Performance Targets (**Attachment #4**) — *[motion to approve]* – Dave Walker
6. Project Updates (handout to be distributed at meeting)

**TAC MEETING SCHEDULE For 2019 (Next meeting highlighted)**

<b>January 24<sup>th</sup></b> February 28 <sup>th</sup> March 28 <sup>th</sup> April 25 <sup>th</sup>	May 23 <sup>rd</sup> June 27 <sup>th</sup> July 25 <sup>th</sup> August 22 <sup>nd</sup>	September 26 <sup>th</sup> October 24 <sup>th</sup> December 5 <sup>th</sup>	<b>***Off Schedule***</b>
(The January 24 <sup>th</sup> meeting is highlighted in the original document)			

There is **two hour on-street parking** along Water Street and Center Street. There is also long term parking in the lot on Center Street, by the Citizens Bank Drive-thru (Non-numbered spaces), and in the municipal lot behind the Town Offices. Handicapped parking spaces are available on the bottom floor of the parking structure adjacent to the RPC office as well as on Water Street in front of the RPC office.



**Transportation Advisory Committee  
Rockingham Planning Commission  
Minutes**

**October 25, 2018  
RPC Conference Room, Exeter NH**

**Members Present:** E. Strachan (NHDES); C. Cross (Newington); M. Stowell (PDA); Eric Eby (Portsmouth); K. Christiansen (Brentwood); S. Gerrato (Greenland); L. St. John (NH DOT); T. Austin (Stratham); T. Moore (Plaistow); A. Garron (Salem)

**Guests:** R. Clark, S. Hastings (Hampstead);

**Staff:** D. Walker (Assistant Director); S. Bogle (Sr. Transportation Planner); C. Matthews (GIS/Transportation Analyst); A. Pettengill (Business Manager)

1. **Introductions:** Walker convened the meeting at 9 a.m. in the Chairman's absence, and introductions were made.

**2. Minutes of 9/27/18 TAC meeting**

*Moore moved to approve the Minutes of September 27, 2018 as presented; Stowell seconded. **SO VOTED** (4 abstentions)*

**3. Ten Year Plan Project Selection Criteria weighting-D. Walker**

Walker distributed and reviewed the 2019 Project Scoring Methodology for projects for the State Ten Year Plan. He reviewed the project selection criteria and weighting. He explained that a survey on criteria weighting was compiled and the results of that survey have resulted in the proposed percentage weight breakdowns in each category as seen on the handout. Discussion followed regarding conditions of roads and bridges, traffic calming, mobility, safety and other factors that affect the percentage breakdowns. *Christiansen moved to approve the Ten Year Plan Project Selection Criteria weights as proposed; Austin seconded. **SO VOTED** DOT representative St. John abstained.*

**4. Ten Year Plan project prioritization process & projects under consideration – D. Walker**

Walker reviewed the MPO role in the State Ten Year Plan as it regards project prioritization, it's timeline and the process. He went over the weighting

process and weights for the categories. He distributed a replacement Table 3 to Attachment #2 and asked everyone to peruse the Tables closely and if they are aware of changes or corrections to the projects listed, let him know. Discussion followed and several additional removals were suggested due to completions and changes. *Christiansen moved to approve the Project Prioritization Listing as revised; Austin seconded. **SO VOTED.** DOT representative St. John abstained.*

## **5. Level of Traffic Stress Planning Grant-S. Bogle**

Bogle noted that RPC had been awarded a research grant under FHWA's Measuring Multimodal Network Connectivity pilot program. The project will be a cooperative effort of the four MPOs, CNHRPC and Plymouth State University. Bicycle Level of Traffic stress is a measure of suitability of roadways for different types of people with varying levels of traffic stress tolerance. Plymouth State University has adapted a GIS-based model for calculating LTS originally developed at the Mineta Transportation Institute. To date LTS analyses have been completed for Manchester, Nashua, the whole CNHRPC region, and several communities in the RPC region. The goals of the project are to: 1) collect additional road attribute data to allow calculation of LTS for all towns in the five planning regions; 2) involve the public in ground-truthing model outputs and refining the model as needed; 3) develop and implement one or more LTS-based performance measures that would be adopted by the MPOs; 4) make LTS network analyses available to member communities to assist in project identification and development; 5) prepare a research report for FHWA; and 6) participate in a peer exchange with other grantees and share findings through regional conferences. The contract should be approved by Governor and Council in December with project start in January 2019. The project must be completed by September 30, 2019.

## **6. Project Updates**

Walker distributed a list of project updates.

Other Business: Strachan noted that NH Dept of Environmental Services has a current project for replacement of older diesel vehicles to be replaced under the Diesel Emissions Reduction Act. Contact her for more information.

Bogle noted that COAST is performing an Operations Analysis and encouraged all to attend their meetings and complete their survey.

*Meeting adjourned at 10:45 a.m.*

Respectfully submitted,  
Annette Pettengill, Recording Secretary

## Memorandum

DATE: November 28, 2018  
TO: MPO Transportation Advisory Committee  
FROM: David Walker  
RE: Project Selection

---

The next step in the project prioritization process is for the MPO to identify candidate projects for the State Ten Year Plan from the projects in the Long Range Transportation Plan and those recently submitted by communities. A preliminary list of 76 projects to be prioritized for the Ten Year Plan was presented to the TAC at the October meeting. These projects were separated into three groups based on scale (34 Local, 21 Regional, 21 Inter-regional) and this list was further refined to remove 2 projects at the request of the community, 2 projects that are ineligible for federal funds, and six projects that are not ready to move forward for a total of 66 projects (28 Local, 19 Regional, and 19 Inter-regional) to be prioritized for the Ten Year Plan. The full list of scored projects will be available at the TAC meeting next Thursday.

I have scored each of the 66 projects according to the established statewide criteria and the weights set by the TAC at the October meeting. The top five projects from each group (Local, Regional, Inter-regional) are included in the attached worksheet. The projects are sorted alphabetically by community within each group and are not in rank order. The TAC will work from this worksheet to select projects to be the candidates submitted to NHDOT for engineering and cost review and a live version will be utilized to calculate total cumulative costs as projects are selected. The direction provided by NHDOT is to select projects up to the regional allocation target (\$6,674,000 in this case) plus an additional two projects for review. Once the review has been completed, NHDOT will provide any updated cost information and scope issues to the RPC. With that information in hand, the RPC TAC and Policy Committees will produce a finalized priority list that is constrained to the allocation target to be submitted to NHDOT next spring.

***Recommended Action: Produce a candidate projects list to submit to NHDOT for engineering and cost review.***

**Preliminary Candidate Projects List - Needs to be constrained to the Target plus two projects**

RPC Project								
Candidate	Program	Number	CityTown	Roads	Scope	TotalBaseCost	InflatedCost	Cumulative Cost
	Local	6197012	Hampton	Winnacunnet Rd (NH 101E) & High Street (NH 27)	The reconstruction of Winnacunnet Road as a "Complete Street" will include new accessible sidewalks along both sides of the roadway, travel way and shoulder delineation, and the implementation of new signage, markings and crossings. The construction of the "missing" link between Tobey Road and Five Corners will include the construction of new sidewalk (7 ft) within the existing ROW	\$900,000	\$1,273,479	
	Local	6331002	Newington	Pease Blvd/ NH Ave/ Arboretum Dr	Construct a Northbound right-turn-lane on New Hampshire Avenue at the intersection with Arboretum Drive.	\$100,000	\$141,498	
	Local	6375004	Plaistow	NH 121A	Intersection improvements at North Avenue And NH 121A In Plaistow	\$1,806,650	\$2,556,368	
	Local	6379034	Portsmouth	International Dr/ Manchester Square/ Corporate Dr	Install traffic signal at the intersection of International Drive with Manchester Square and Corporate Drive on the Pease International Tradeport in Portsmouth	\$300,000	\$424,493	
	Local	6379027	Portsmouth	Market St and Russell St	Intersection improvements are required to improve traffic flow and safety. A roundabout is currently being considered for this location.	\$875,000	\$1,238,105	
	Regional	6239001	Kensington	NH 107	Realign and upgrade the intersection of NH 150 and NH 107 in Kensington. Possible location for a roundabout. Source: NH 107/150 Intersection Study	\$900,000	\$1,365,099	
	Regional	6379002	Portsmouth	Grafton Drive	Grafton Drive will be widened to provide center turn lane to facilitate turning movements at the intersection with Country Club Rd and the Portsmouth Transportation Center	\$500,000	\$707,488	
	Regional	6409007	Seabrook	East Coast Greenway	Construct multiple use pathway on State owned portion of B&M railroad from Mass state line to Seabrook Station. East Coast Greenway.	\$964,750	\$1,298,949	
	Regional	6409001	Seabrook	US 1	Reconfigure rotary on US 1 at the MA state line to a four way intersection as per the US 1 Corridor Study. Widen US 1 to 5 lanes	\$2,875,000	\$4,068,058	
	Regional	6431001	Stratham	Rte. 108 and 33 / Portsmouth Ave and Winnicutt Road	A comprehensive reconfiguration of the Rte. 108 / Rte. 33 Stratham Circle through the Town Center District. Reconfiguration of 4 intersections for traffic and pedestrian access and safety improvements including a roundabout, lane reconfigurations, signalization, sidewalks, bicycle lanes, crosswalks, Bus shelters, traffic calming measures, and signage improvements.	\$2,959,300	\$4,187,341	
	Inter-Regional	6197005	Hampton	NH 101/ US 1	NH 101/ US 1 interchange reconfiguration as per the outcome of the feasibility study	\$5,400,000	\$7,640,875	
	Inter-Regional	6345011	North Hampton	US 1	Capacity improvements at Intersection of US 1 and Atlantic Avenue (NH 111) including safety improvements for bicycle and pedestrian access	\$744,000	\$1,052,743	
	Inter-Regional	6379021	Portsmouth	US Route 1 Bypass	Functional and operational Improvements to the US 1 Bypass traffic circle. Assumes at grade circle/roundabout or intersection	\$5,031,250	\$7,119,102	
	Inter-Regional	6379006	Portsmouth	US Route 1 Bypass	reconstruct the US 1 Bypass to current standards between the split from Lafayette Road to just south of the traffic circle.	\$9,867,000	\$13,961,577	
	Inter-Regional	6379020	Portsmouth	US Route 1 Bypass	Reconstruct the Northern segment of the US 1 Bypass between the traffic circle and the Sarah Long Bridge to current standards	\$7,590,000	\$10,739,674	

Target                      \$6,674,000                      \$0

## MEMORANDUM

To: MPO Technical Advisory Committee  
From: Scott Bogle, Senior Transportation Planner  
Date: November 29, 2018  
RE: NHDOT Commissioner Sheehan's Budget Discussion with MPO Policy Committee

At the October meeting of the MPO Policy Committee NHDOT Commissioner Victoria Sheehan and Deputy Commissioner Chris Waszczuk gave a presentation on Federal and State funding challenges facing New Hampshire's transportation system, and the Department's intention to ask for new revenue in the SFY2020-2021 state budget. They asked for MPO support of this request, and assistance in raising awareness among member communities of unmet need and looming potential losses in Federal funding and the implications of this for the state. An overview of their key points is below:

New Hampshire is highly dependent on Federal transportation funding. NHDOT's ability to deliver non-Turnpike projects in the Ten Year Plan (TYP) is heavily dependent on Federal funding. State gas tax and vehicle registration revenues are used by NHDOT primarily to fund highway operations and maintenance, together with the Betterment, State Aid Highway and State Aid Bridge programs. These programs typically fund small projects that would not be eligible for, or a good fit for, Federal funding.

Use of Turnpike Toll Credits to match Federal highway funds reduces overall resources - While Federal highway funds typically require a 20% non-Federal match, New Hampshire for years has not provided cash match for Federally-funded projects on the TYP. Rather these are matched with Turnpike toll credits. Toll credits are not actual cash. Rather, the Federal Highway Administration (FHWA) allows our state to count tolls generated on the Turnpike system as "paper match" allowing use of 100% Federal funding for projects. Ultimately this reduces the amount of work that can be done. New Hampshire can currently access approx. \$158 million in Federal transportation funding annually. If paired with 20% state cash match as intended, this would allow approximately \$197 million of projects to be completed annually. By depending on toll credits as match, New Hampshire can only complete \$158 million worth of projects annually – 20% less work than intended.

New Hampshire's transportation system is falling behind. At projected funding levels, there will be more bridges on the state Red List at the end of the current Ten Year Plan than at the

beginning of the Plan, as new bridges are added to the Red List faster than they can be rehabilitated. Of 5,600 miles of state roads, 1,142 miles (20% of the system) are not eligible for federal funding. These facilities (Tier 3 & 4 roads) have the highest percentage of poor and very poor condition roads across the state road system. No funding exists to reconstruct or perform major rehabilitation of these roads. There is inadequate funding for replacement and upgrade of failed or undersized culverts, a critical need to make the transportation system resilient to more frequent and severe storms that cause flooding and washouts. Similarly, while demand for public transit and senior transportation is growing with demographic shifts, no state funding exists for public transit operations aside from short-term highway mitigation projects.

Federal funding is at risk. Revenue to the Federal Highway Trust Fund is primarily derived from fuel taxes. The Federal gas tax was last increased in 1993. Inflationary increases in construction costs have eroded the buying power of the Highway Trust Fund, as has increased fuel efficiency and growing use of alternative fuel vehicles. Annual HTF outlays to maintain current spending levels plus inflationary adjustments are projected to exceed revenues by \$16 billion in FY2020, rising to \$23 billion by FY2027. The FAST Act has closed this gap with Federal General Fund dollars out to FY2020, but the next Congress may not allow this to continue in the next reauthorization. If Congress doesn't allocate more General Fund revenues and doesn't take action to increase Highway Fund revenues, then USDOT apportionments to the states will drop 50% in 2021. This would cripple most states' highway and transit programs, and especially New Hampshire's given our lack of State revenues.

NHDOT will seek to address some of these issues with its SFY2020-2021 Budget request. Likely NHDOT requests for the coming biennium and legislative session include the following:

- New state revenues adequate to provide cash match on the Federally funded highway program, reducing dependence on toll credits and increasing capacity to deliver projects. The specific dollar value of this request is yet to be determined.
- Restoration of \$200,000/year in State operating assistance for public transit. This is a small number far below contributions in peer states, but critical to public transit agencies' ability to maintain service and address emerging needs.
- Expansion of the Turnpike system along I93 approximately one mile north from Exit 14 to north of Exit 15 in Concord. This would allow the major Bow-Concord I93 Improvements project to be funded through the turnpike system, accelerating the project and freeing up over \$130 million in federal funds for other priorities.

**Requested Action:** *The RPC MPO has long been on record supporting increased state revenues to maintain and modernize New Hampshire's transportation system, including expanding transportation choices. The Commissioner asked each Regional Planning Commission to endorse the Department's request, and convey information on the problems described here to member municipalities. Staff ask the TAC to consider the Department's proposal, and if it so chooses, pass a motion endorsing the proposal and encouraging the MPO Policy Committee to do the same.*

**Rockingham Planning Commission**  
**Initial Metropolitan Planning Organization**  
**Safety Performance Targets & Methodology**

DRAFT

December 4, 2018

**Background**

On March 15<sup>th</sup>, 2016 the Federal Highway Administration (FHWA) published the final rule on the Highway Safety Improvement Program (HSIP). Beginning in August, 2017 for requires State Departments of Transportation, and February, 2018 for Metropolitan Planning Organizations (MPOs), the rule requires annual (calendar year) targets for Safety Performance in five areas:

1. **Number of Fatalities:** The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year.
2. **Rate of Fatalities:** The ratio of total number of fatalities to the number of vehicle miles traveled (VMT, in 100 Million VMT) in a calendar year.
3. **Number of Serious Injuries:** The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year.
4. **Rate of Serious Injuries:** The ratio of total number of serious injuries to the number of VMT (in 100 Million VMT) in a calendar year.
5. **Number of Non-Motorized Fatalities and Non-motorized Serious Injuries:** The combined total number of non-motorized fatalities and non-motorized serious injuries involving a motor vehicle during a calendar year.

Data for the establishment of these measures is provided from three sources:

- **Fatality Analysis Reporting System (FARS):** FARS Annual Report File or Final data is utilized to provide information on fatal crashes in the state.
- **State Motor Vehicle Crash Database:** Data collected and maintained by the NH Department of Safety is utilized to determine the number of serious injury crashes in the state (currently those classified as “A” on the KABCO scale). Crashes can be aggregated at the state, region, community, or highway level.
- **Highway Performance Monitoring System (HPMS):** State Vehicle Miles of Travel (VMT) data is collected by the Department of Transportation and aggregated into a dataset for the state. VMT data can be calculated for MPO regions and individual communities.

**Target Development**

States establish Highway Safety Improvement Program (HSIP) targets and report them for the upcoming calendar year in the HSIP annual report that is submitted to FHWA by August 31<sup>st</sup> each year. Targets are applicable to all public roads, regardless of functional classification or ownership. The targets established for number and rate of fatalities, and number of serious injuries must be identical to those established for the National Highway Transportation Safety Agency (NHTSA) Highway Safety Grant program in the annual Highway Safety Plan. The

state has the option to also establish any number of urbanized area targets and a non-urbanized area target for the purposes of evaluating and reporting measures however those sub-state targets are not included in the significant progress determination that will be made by FHWA.

In New Hampshire, the process used to develop the required safety measures included in the annual Highway Safety Plan formed the basis for the establishment of the five FHWA mandated targets by NHDOT and the MPOs. This involved coordination and consultation between the New Hampshire Departments of Transportation and Safety, as well the four MPOs in the state. Currently available fatality, serious injury, and volume data were analyzed to establish 2007-2017 conditions in terms of total fatalities, fatality rates, total serious injuries, serious injury rates, as well as total non-motorized fatalities and serious injuries. Five year rolling averages were developed from these values and utilized to compute projected values for 2019.

**State Targets**

The tables on the following pages show the data supporting the targets for the five required measures as well as a graph showing the state targets for 2019.

Measure	2017 Value	5-Year Rolling Average		Current Trend	Desired Trend	2019 Target
		Previous	Current			
Number of Fatalities	102	117.6	116.4	↘	↘	<b>116.4</b>
Fatality Rate per 100 Million VMT	0.746	0.900	0.881	↘	↘	<b>0.879</b>
Number of Serious Injuries	410	499.8	457.2	↘	↘	<b>433.2</b>
Serious Injury Rate per 100 Million VMT	3.567	3.847	3.462	↘	↘	<b>3.207</b>
Non-Motorized Fatalities and Serious Injuries	54	56.4	53.4	↘	↘	<b>53.4</b>

**MPO Targets**

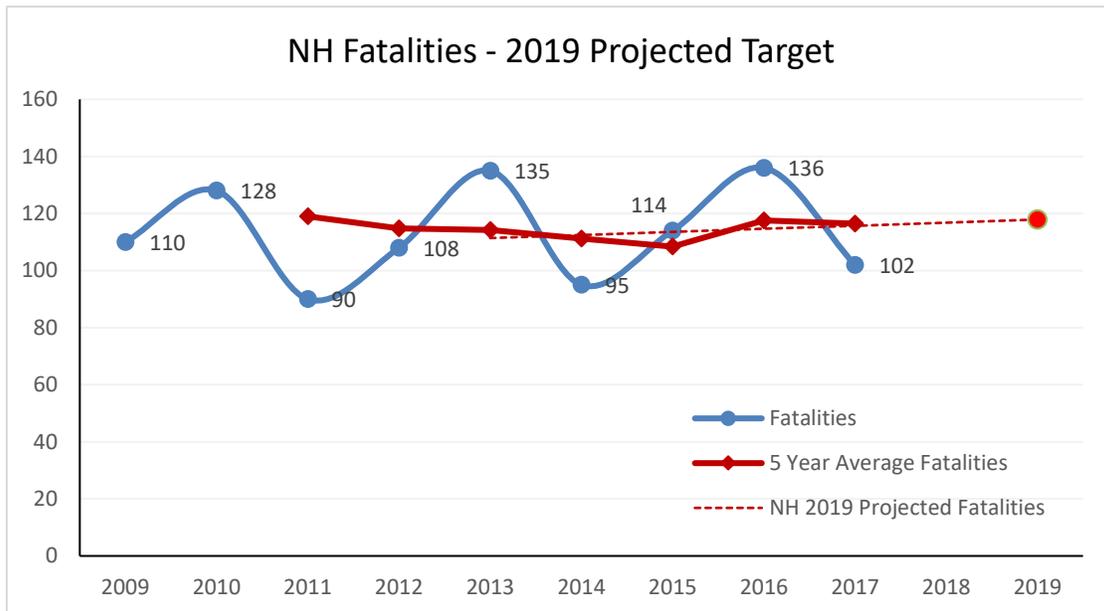
For 2019, the MPO is agreeing to support the State of New Hampshire HSIP Targets in all five mandated areas. In doing so, the MPO is agreeing to:

- 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 HSIP targets for all public roads in the metropolitan area in the MTP (Metropolitan Transportation Plan)
- Integrate into the metropolitan transportation planning 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, including the SHSP
- Include a description in the TIP (Transportation Improvement Program) of the anticipated effect of the TIP toward achieving HSIP targets in the MTP, linking investment priorities in the TIP to those safety targets

## Number of Fatalities

The Federal Fatal Analysis Reporting System (FARS) provides the data necessary for identifying the total number of traffic crash fatalities in New Hampshire and for the MPO region. Five-year rolling averages are computed to provide a better understanding of the overall data over time without discarding years with significant increases or decreases, as well as to provide a mechanism for regression to the mean for a random variable such as fatalities.

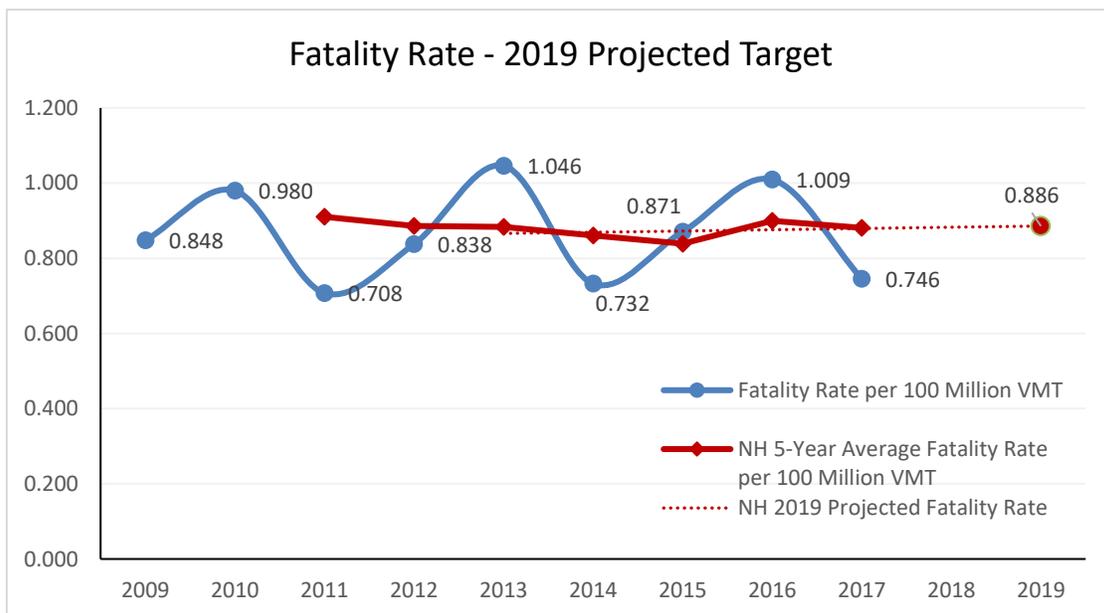
Year	Annual Crash Fatalities		5-Year Rolling Average Crash Fatalities		
	New Hampshire	MPO Region	5-Year Period	New Hampshire	MPO Region
2009	110	14			
2010	128	17			
2011	90	9			
2012	108	20			
2013	135	16	2009-2013	<b>114.2</b>	<b>15.2</b>
2014	95	10	2010-2014	<b>111.2</b>	<b>14.4</b>
2015	114	16	2011-2015	<b>108.4</b>	<b>14.2</b>
2016	136	17	2012-2016	<b>117.6</b>	<b>15.8</b>
2017	102	9	2013-2017	<b>116.4</b>	<b>13.6</b>



## Rate of Fatalities

The Federal Fatal Analysis Reporting System (FARS) maintained by the National Highway Traffic Safety Administration (NHTSA) provides the data necessary for identifying the total number of traffic crash fatalities in New Hampshire and the MPO region specifically. This information is combined with data from the Highway Performance Monitoring System (HPMS) which provides annual Vehicle Miles of Travel (VMT) at the State and community level. Combining the total number of fatalities in a particular year with the aggregated volume of travel in the state during that same year provides a fatality rate per 100 Million VMT. This data is further aggregated into 5-year averages to reduce the impacts of the high variability in the number of fatalities from year to year and to provide some indicators of longer-term trends.

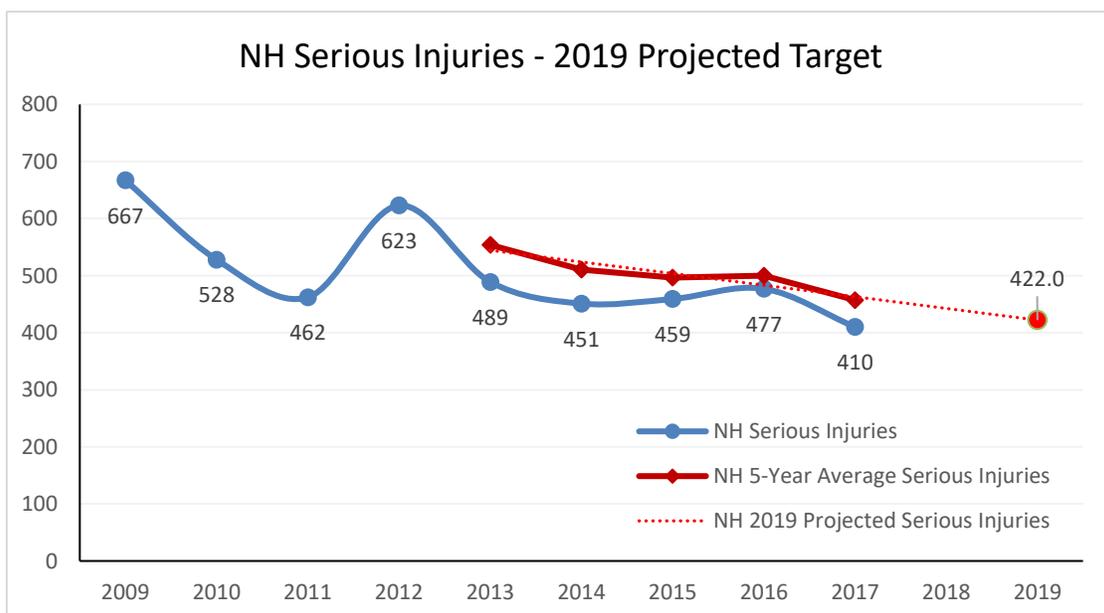
Year	100 Million Vehicle Miles of Travel (VMT)		Fatality Rate per 100 Million VMT		5-Year Period	5-Year Average Fatality Rates per 100 Million VMT	
	New Hampshire	MPO Region	New Hampshire	MPO Region		New Hampshire	MPO Region
2009	129.75	22.19	0.848	0.631			
2010	130.65	22.34	0.980	0.761			
2011	127.20	21.75	0.708	0.414			
2012	128.94	22.05	0.838	0.907			
2013	129.03	23.48	1.046	0.681	2009-2013	<b>0.884</b>	<b>0.679</b>
2014	129.70	21.66	0.732	0.462	2010-2014	<b>0.861</b>	<b>0.645</b>
2015	130.94	21.61	0.871	0.741	2011-2015	<b>0.839</b>	<b>0.641</b>
2016	134.76	23.04	1.009	0.738	2012-2016	<b>0.899</b>	<b>0.706</b>
2017	136.81	23.39	0.746	0.385	2013-2017	<b>0.881</b>	<b>0.601</b>



## Serious Injuries

Serious injuries are defined currently as those that are designated as “A” or “4 Incapacitating” on the crash report form used by the New Hampshire Department of Safety (State of New Hampshire Uniform Police Traffic Crash Report, 2007). This includes injuries that involve severe lacerations, broke or distorted limbs, skull fracture, crushed chest, internal injuries, unconscious when taken from the accident scene, or unable to leave the accident scene without assistance. The State Crash Records database maintained by the New Hampshire Department of Safety provides the data necessary for identifying the total number of serious injuries from traffic crashes in New Hampshire and the MPO region specifically. Data can be analyzed at the state, regional, municipal, or corridor level.

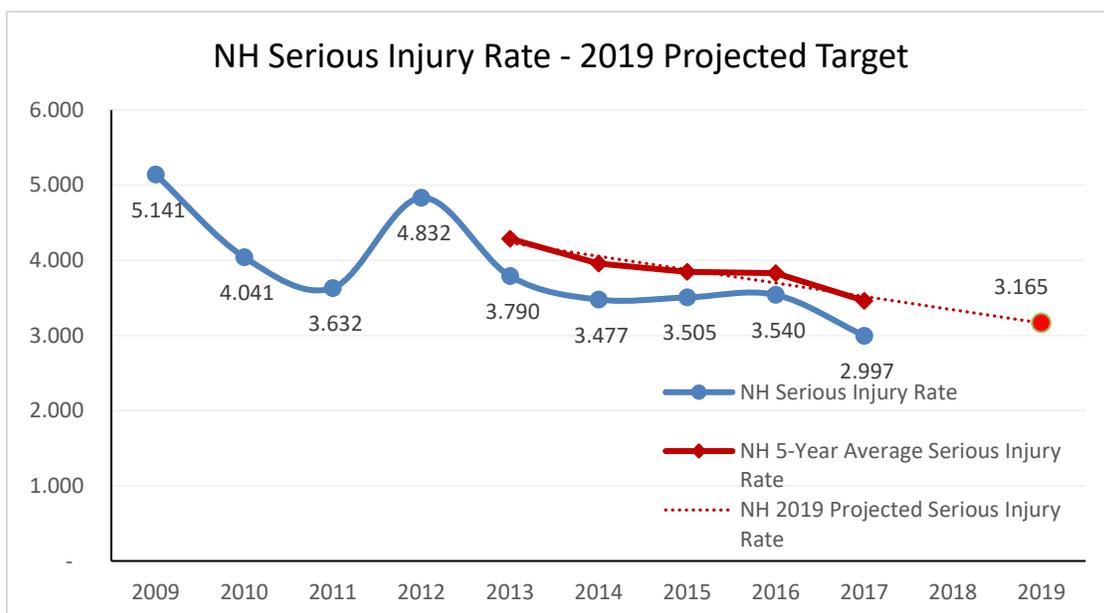
Year	New Hampshire	MPO Region	5-Year Period	5-Year Rolling Average Serious Injuries	
	Serious Injuries	Serious Injuries		New Hampshire	MPO Region
2009	667	105			
2010	528	110			
2011	462	105			
2012	623	119			
2013	489	142	2009-2013	<b>553.8</b>	<b>116.2</b>
2014	451	84	2010-2014	<b>510.6</b>	<b>112</b>
2015	459	87	2011-2015	<b>496.8</b>	<b>107.4</b>
2016	477	92	2012-2016	<b>499.8</b>	<b>104.8</b>
2017	410	32	2013-2017	<b>457.2</b>	<b>87.4</b>



## Rate of Serious Injuries

The Rate of Serious Injuries is calculated by applying an estimate of annual travel in the state to the serious injury totals for the same year. The State Crash Records database maintained by the New Hampshire Department of Safety provides the data necessary for identifying the total number of serious injuries from traffic crashes in New Hampshire and the MPO region specifically. This information is combined with data from the Highway Performance Monitoring System (HPMS) which provides annual Vehicle Miles of Travel (VMT) at the State and community level to produce a rate of serious injuries per 100 Million VMT. This value is further aggregated into f-year averages to identify longer-term trends and reduce the impacts of the variability of the data.

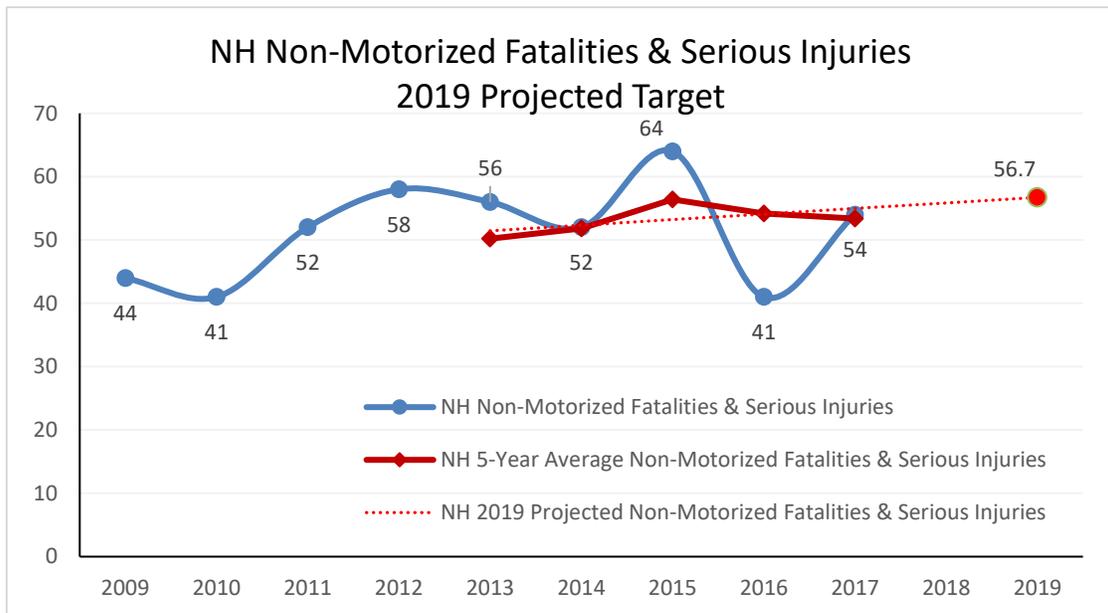
Year	100 Million Vehicle Miles of Travel (VMT)		Serious Injury Rate per 100 Million VMT		5-Year Period	5-Year Average Fatality Rates per 100 Million VMT	
	New Hampshire	MPO Region	New Hampshire	MPO Region		New Hampshire	MPO Region
2009	129.75	22.19	5.141	4.732			
2010	130.65	22.34	4.041	4.924			
2011	127.20	21.75	3.632	4.827			
2012	128.94	22.05	4.832	5.397			
2013	129.03	23.48	3.790	6.047	2009-2013	<b>4.287</b>	<b>5.185</b>
2014	129.70	21.66	3.477	3.878	2010-2014	<b>3.954</b>	<b>5.015</b>
2015	130.94	21.61	3.505	4.027	2011-2015	<b>3.847</b>	<b>4.835</b>
2016	134.76	23.04	3.540	3.992	2012-2016	<b>3.829</b>	<b>4.668</b>
2017	136.81	23.39	2.997	1.368	2013-2017	<b>3.462</b>	<b>3.862</b>



## Non-motorized Fatalities and Serious Injuries

This performance measure utilizes data from both NHTSA's FARS database and the State Crash Records Database which is maintained by the New Hampshire Department of Safety. Each dataset is queried for non-motorized vehicle crashes and the results are tabulated below. This data can be analyzed at the state, regional, municipal, or corridor level.

Year	New Hampshire Non-Motorized Crashes			MPO Region Non-Motorized Crashes			5-Year Rolling Average Non-Motorized Fatalities & Serious Injuries		
	Fatalities	Serious Injuries	Total	Fatalities	Serious Injuries	Total	5-Year Period	New Hampshire	MPO Region
2009	10	34	44	1	7	8			
2010	9	32	41	0	5	5			
2011	10	42	52	1	4	5			
2012	10	48	58	3	11	14			
2013	20	36	56	5	9	14	2009-2013	<b>50.2</b>	<b>9.2</b>
2014	16	36	52	0	9	9	2010-2014	<b>51.8</b>	<b>9.4</b>
2015	14	50	64	2	10	12	2011-2015	<b>56.4</b>	<b>10.8</b>
2016	21	26	41	1	10	11	2012-2016	<b>54.2</b>	<b>12.0</b>
2017	15	39	54	0	4	4	2013-2017	<b>53.4</b>	<b>10.0</b>

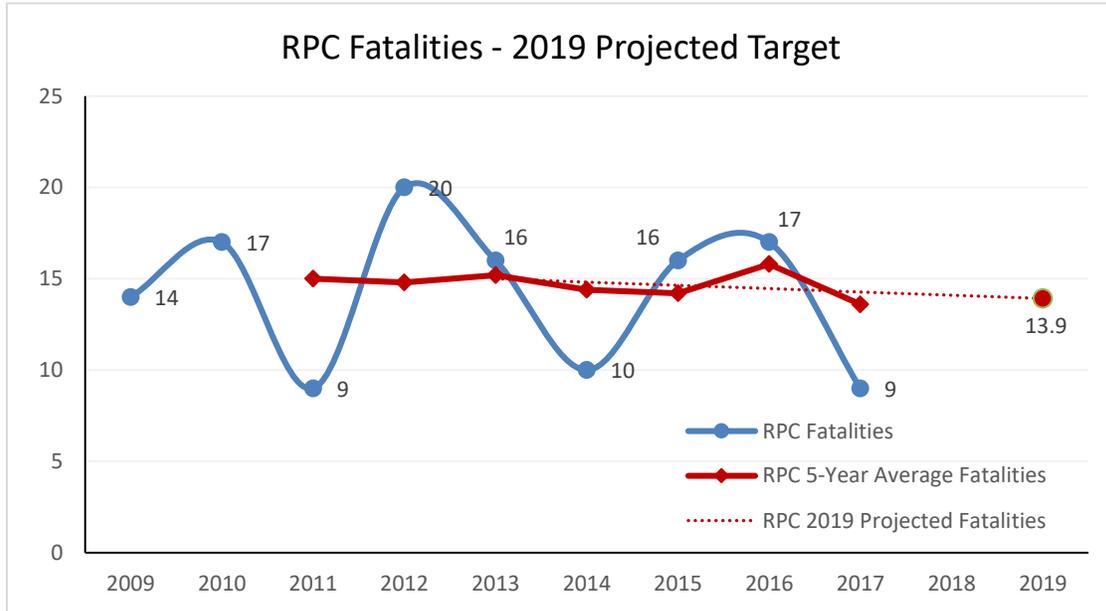


## Appendix A: RPC Region Data Charts

This appendix includes the RPC region chart equivalents to the five included for the State of New Hampshire in the text of the report covering Fatalities, Fatality Rate, Serious Injuries, Serious Injury Rate, and Non-motorized Fatalities and Serious Injuries.

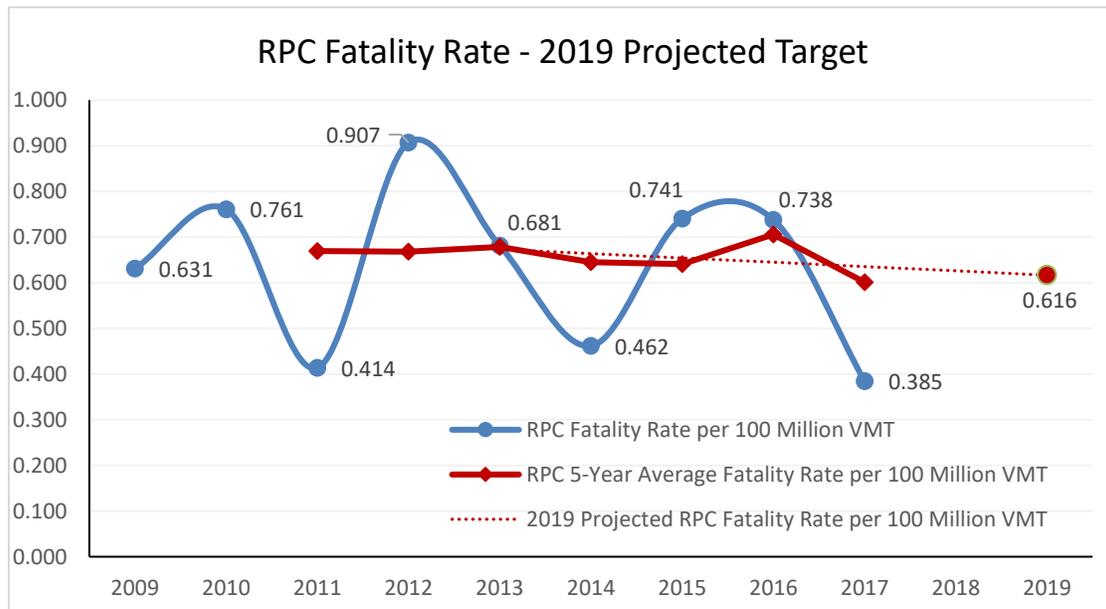
### RPC Fatalities

Fatalities were substantially lower in the RPC region for 2017 with a nearly 50% decrease from 17 to 9 deaths from year to year. The five-year average trend in fatalities continues to decline as well.



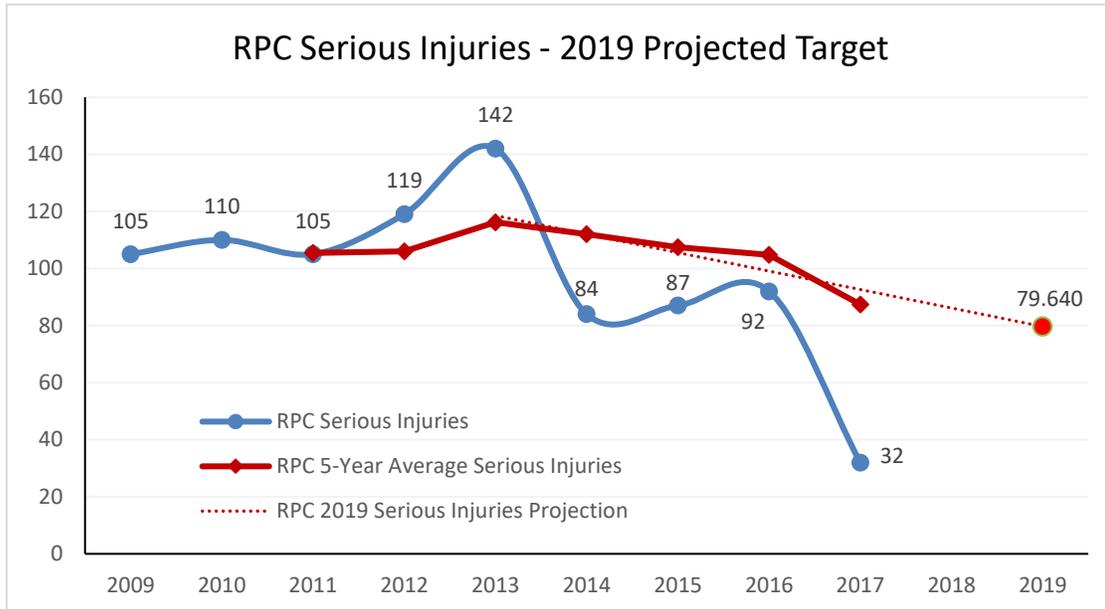
### RPC Fatality Rate

Similar to the number of fatalities, the rate of fatalities per 100 million Vehicle Miles of Travel (VMT) decreased substantially from 2016 to 2017 and continues the trend of a declining rate in the region.



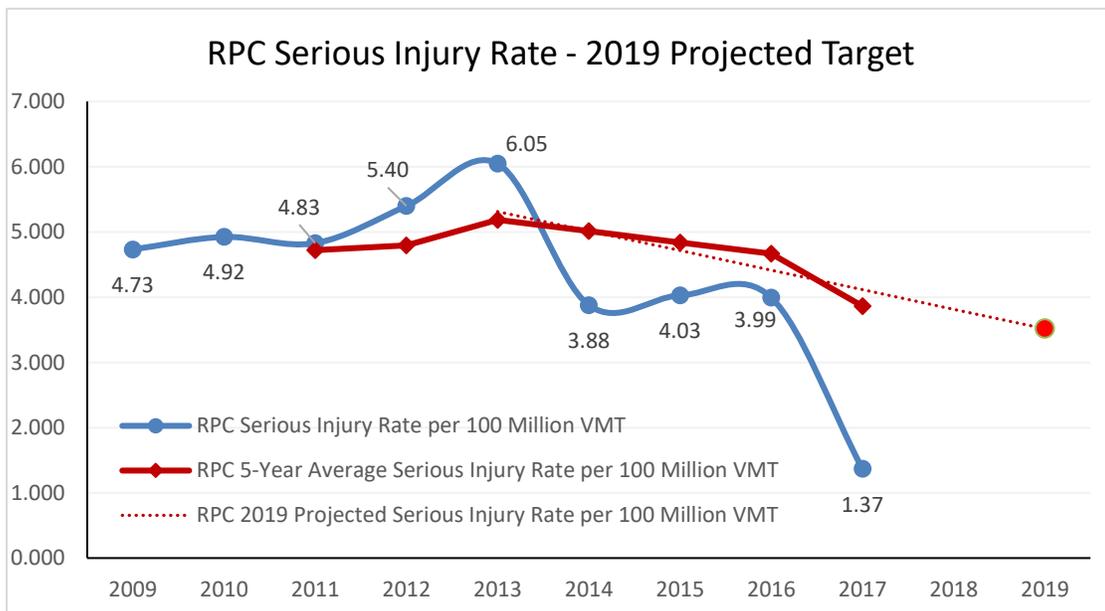
### Serious Injuries

The number of serious injuries from motor vehicle crashes was down 65% in the region from 92 in 2016 to 32 in 2017. This continues the longer term trend experienced in the region of declining numbers of serious injury crashes and injuries.



### Serious Injury Rate

The rate of serious injuries from motor vehicle crashes also declined substantially in 2017 dropping from nearly 4 per 100 million VMT to 1.37 per 100 million VMT. The long term trends based on 5-year averages continues to show a decreasing rate of serious injury crashes.



### Non-Motorized Fatalities & Serious Injuries

Regionally, non-motorized fatalities and serious injuries decreased 60% from 2016 to 2017 from 10 to 4. Unlike the other measures however, the longer-term trends identified using 5-year averages show a projected increase in fatal and serious injury crashes involving bicyclists and pedestrians.

