



REGIONAL  
CONNECTORS  
STUDY

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**WORKING GROUP MEETING**

**August 27, 2020**

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INTERNATIONAL

REGIONAL  
**CONNECTORS**  
STUDY

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**TRAVEL DEMAND MODELING**

# Impacts on Regional Roadway Network (Daily)

Description	2017 Base Year	2045 Baseline w/o Tech	% Change*	2045 Baseline w/Tech	% Change*
Vehicle-Miles Traveled	43,150,459	42,574,865	-1.3%	47,591,973	10.3%
Vehicle-Hours Traveled	1,201,853	1,124,961	-6.4%	1,293,648	7.6%
Delay (Hours)	244,459	174,345	-28.7%	223,805	-8.4%
Average Free-flow Speed (mph)	45.1	44.8	-0.7%	44.5	-1.3%
Average Congested Speed (mph)	35.9	37.8	5.3%	36.8	2.5%

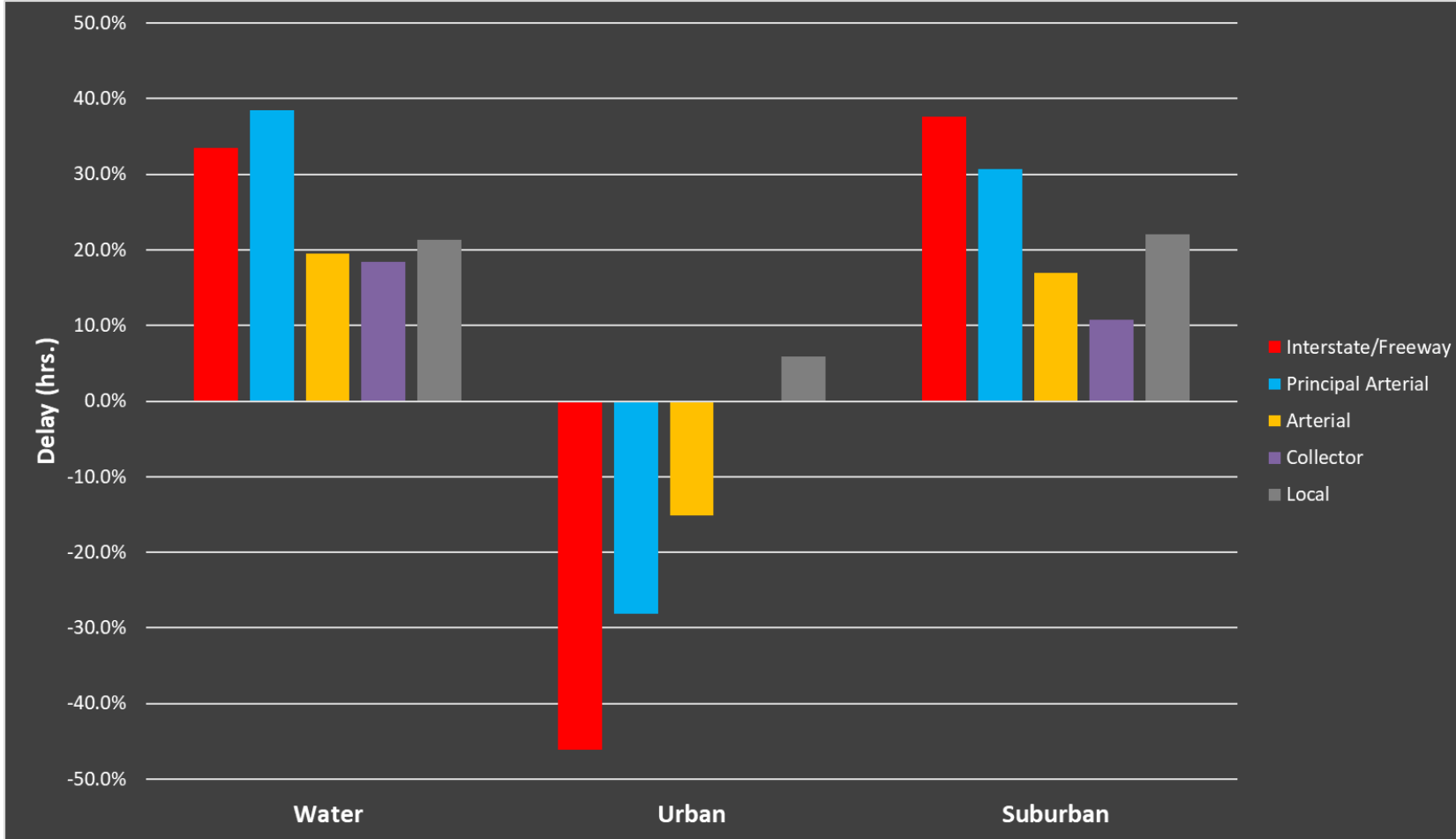
\*compared with 2017 Base Year

# Impacts on Regional Roadway Network (Daily)

Description	2045 Water	% Change	2045 Urban	% Change*	2045 Suburban	% Change*
Vehicle-Miles Traveled	51,207,860	7.6%	48,451,514	1.8%	51,041,632	7.3%
Vehicle-Hours Traveled	1,438,260	11.2%	1,258,113	-2.7%	1,425,114	10.2%
Delay (Hours)	284,054	26.9%	172,706	-22.8%	278,488	24.4%
Average Free-flow Speed (mph)	44.4	-0.2%	44.6	0.2%	44.5	0.0%
Average Congested Speed (mph)	35.6	-3.3%	38.5	4.6%	35.8	-2.7%

\*compared with 2045 Baseline w/ Tech

# Change\* in 2045 Daily Delay by Facility Type



\* Compared with 2045  
Baseline w/Tech

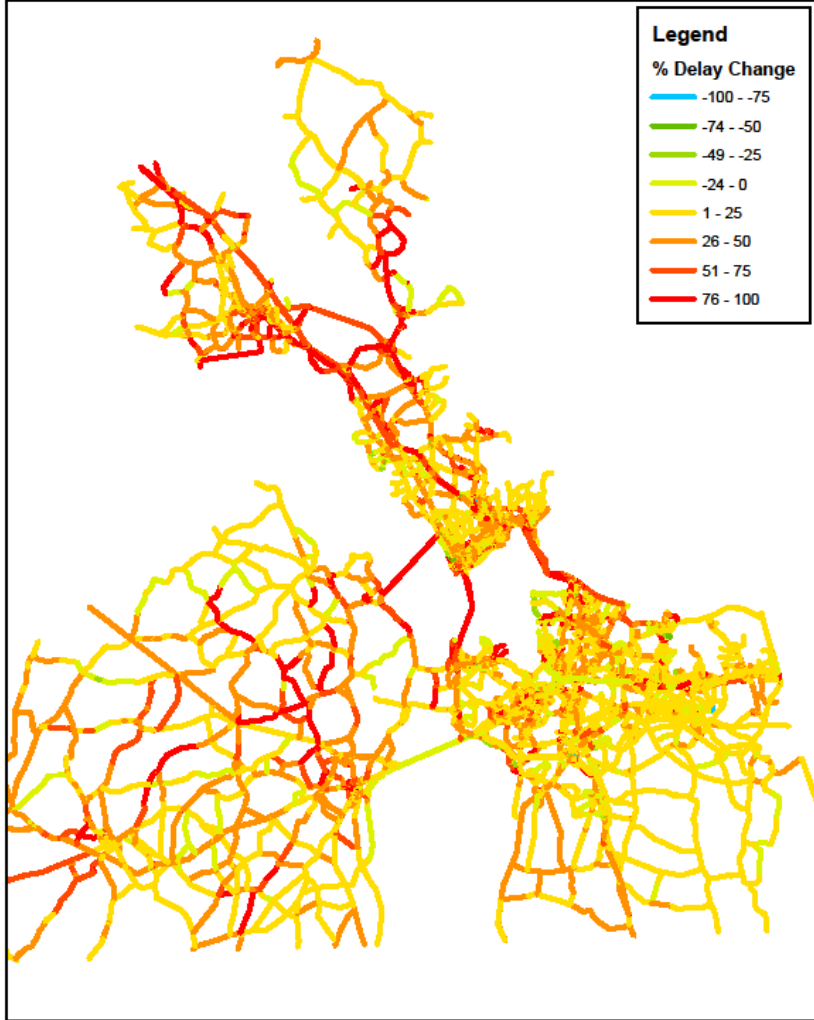
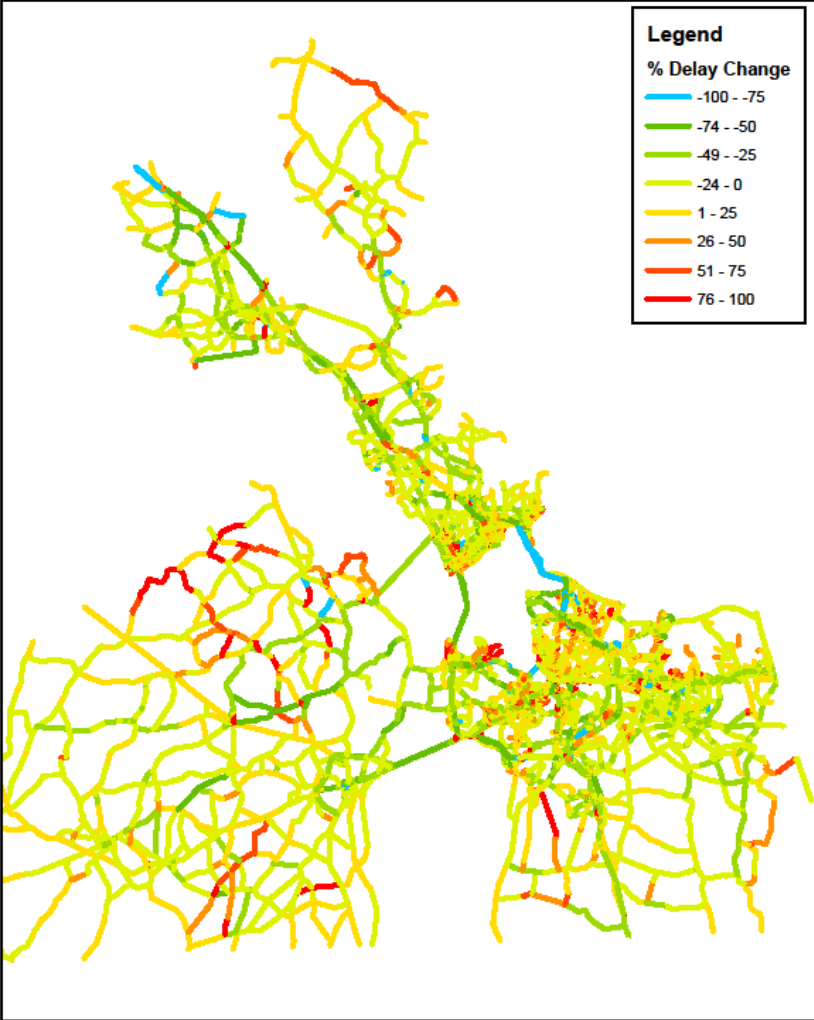
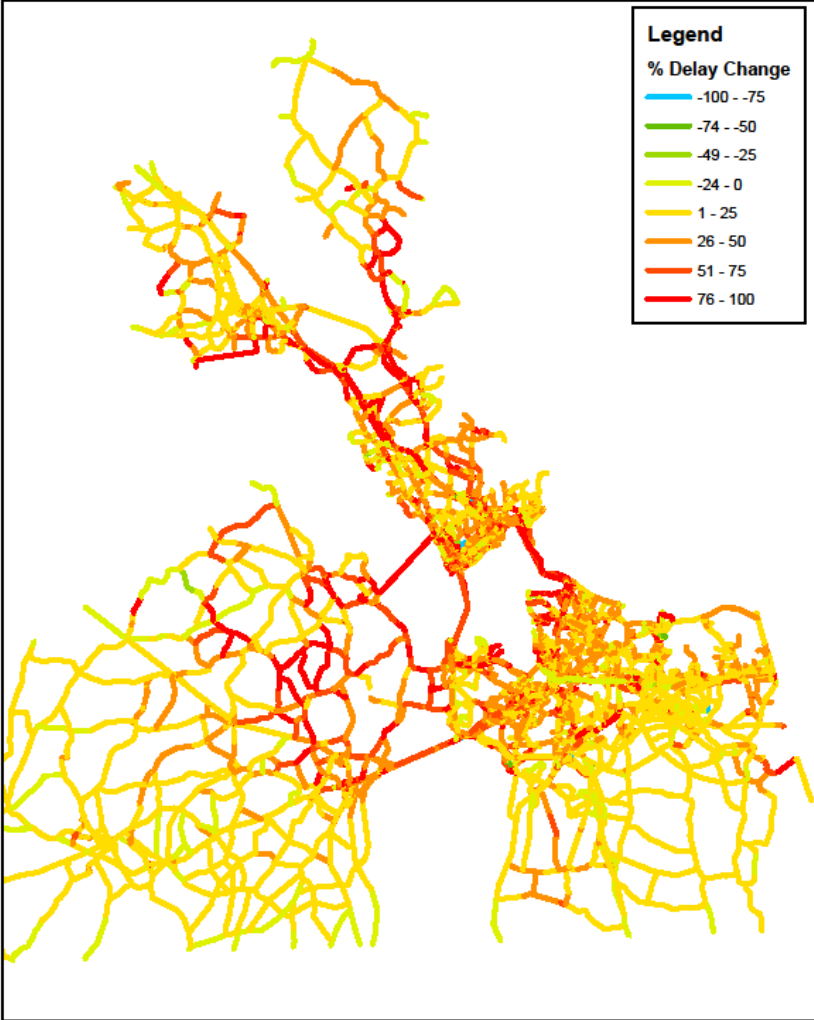
# Change in Daily Delay Due to Congestion

(Compared with 2045  
Baseline w/Tech)

## Water

## Urban

## Suburban

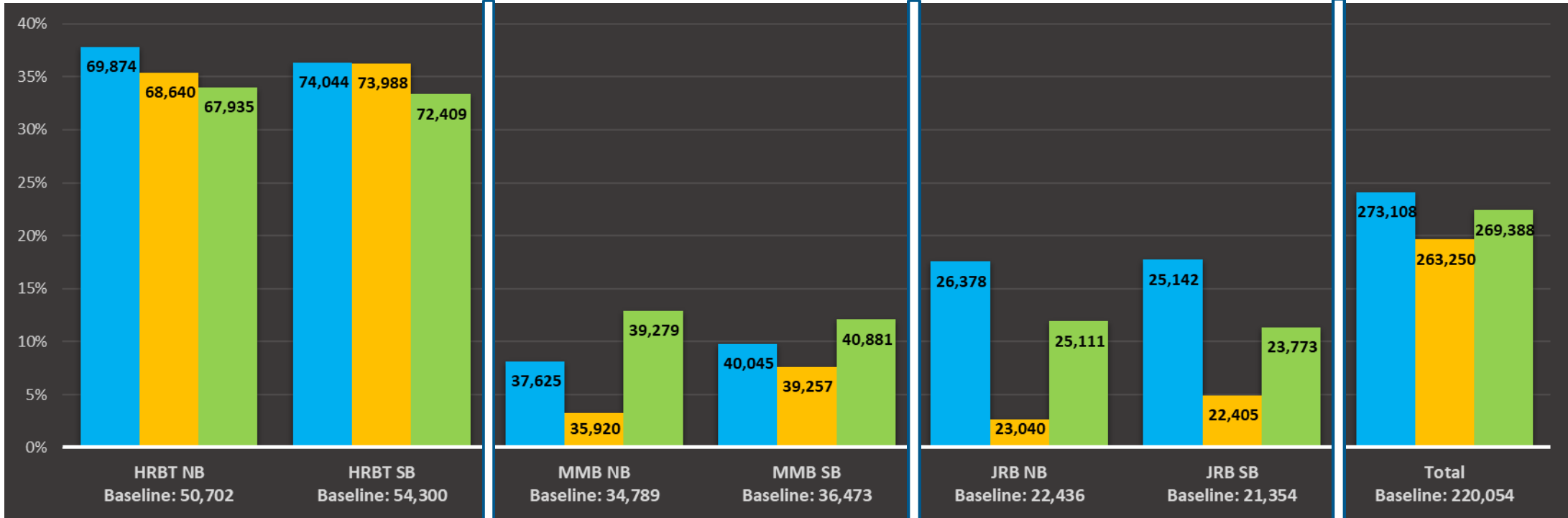


# Change\* in 2045 Daily Delay on Harbor Crossings



**X,XXX** – daily delay in hours.  
 \*compared with 2045 Baseline w/Tech

# Change\* in Daily Volume on Harbor Crossings



**X,XXX** – daily volume.

\*compared with 2045 Baseline w/Tech



# DISCUSSION

- Discuss congestion patterns
- Are new alternatives needed to address them?
- What is the key data in the dashboard for assessing needs?

# Performance Measures

## ECONOMIC

(Change in) Lost productivity from delay

(Economic impact of change in) Labor market accessibility

Performance on the freight network - total delay + spatial results

(Change in) Percent of freight traffic on secondary streets - total + spatial

## TRANSPORTATION NETWORK

(Change in) Delay on cross-harbor trips [time and dollar value]

(Change in) Circuity of cross-harbor trips

(Change in) Reliability for cross-harbor trips [time and dollar value]

(Change in) Cross-harbor accessibility

(Change in) Regional delay [total + spatial]

System reliability

(Change in) User cost

Cost of forecasted crashes

(Change in) Transportation network impact from flood-prone conditions [e.g., delay, trip length, and/or circuity]

## ACCESSIBILITY & TRAVEL MODE

(Change in) Multimodal accessibility to jobs

(Change in) Accessibility index by mode

Performance of the transit-serving roadway network [i.e., average speed]

(Change in) Mode share index

(Change in) Accessibility to major tourist attractions

(Change in) Transit ridership

Percent of jobs/pop within (15 min) drive time to airport or Amtrak station

Low income household access to employment

## TECHNOLOGY (Focus is on comparison of scenarios, not network)

Percent of trips by automated vehicles

(Change in) Percent of travel using facilities with adaptive technologies [e.g., V2I, ITS]

Reliability enhancement from technology

Induced trip demand from technology

# Next Steps

- September 22, 9:30 AM - Joint Working Group/Steering (Policy) Committee Meeting – review complete dashboard with congestion-related items and economic impacts
- Alternative identification, development, and assessment