



QUEUE WARNING



More Information: tti.tamu.edu/policy/how-to-fix-congestion

Description

A queue warning system uses signs and flashing lights to tell drivers of upcoming stop-and-go traffic (based on real-time traffic detection). Drivers can then use this information to slow down more evenly, avoiding dangerous emergency braking and other erratic behavior. The changeable message signs display symbols or words that can be automated or controlled by a traffic management center operator.

Adjustable speed limits and lane control signals are incident management strategies that can be combined with queue warning systems. Work zones also benefit with portable changeable message signs placed prior to the expected queue points.

Target Market

- Regularly congested roads or areas with frequent queues in specific locations.
- Roads with sight distance reduced by slopes, curves, or poor lighting.

How Will This Help?

- **Reduces crashes** by alerting drivers of congestion.
- **Reduces crash severity.**
- **Delays the onset of congestion,** improving traffic flow and trip time.
- **Decreases emissions, noise, and fuel consumption.**

Implementation Issues

Coordinating operations between other strategies is crucial for successful implementation. Signs should use clear and consistent messaging to maximize driver comprehension. When combined with adjustable speed limits, the queue warning signs and/or flashing lights need to be visible to all vehicles. An expert system that automatically deploys the strategy based on current road conditions is ideal.

Ultimately, thorough public engagement and deploying queue warning systems to gather input about where the signs would be most effective and what information would be most helpful to display, and to educate drivers on the system as a whole.

COST



TIME



MODERATE

IMPACT



WHO



STATE

HURDLES

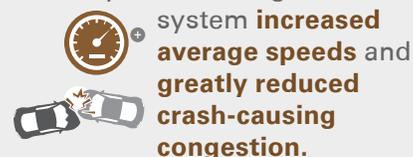


PUBLIC SUPPORT,
OPERATIONS

SUCCESS STORIES

▲ IH 610, Houston

A queue warning test



system **increased average speeds** and **greatly reduced crash-causing congestion.**

▼ Europe

Queue warning systems in **Germany, Belgium, Sweden, and Norway** have been shown to



decrease congestion-related crashes by 20% to 46% and **work zone crashes by up to 60%.**

