

NTOC Webinar on TMC Weather Integration

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City of Colorado Springs

Dave Krauth – City Traffic Engineer

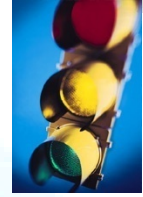
Steve Tobias – TMC Operations

Erin Sinclair – Creative Coordinator

Rob Helt – Principal Traffic Engineer



TMC Background and Setting



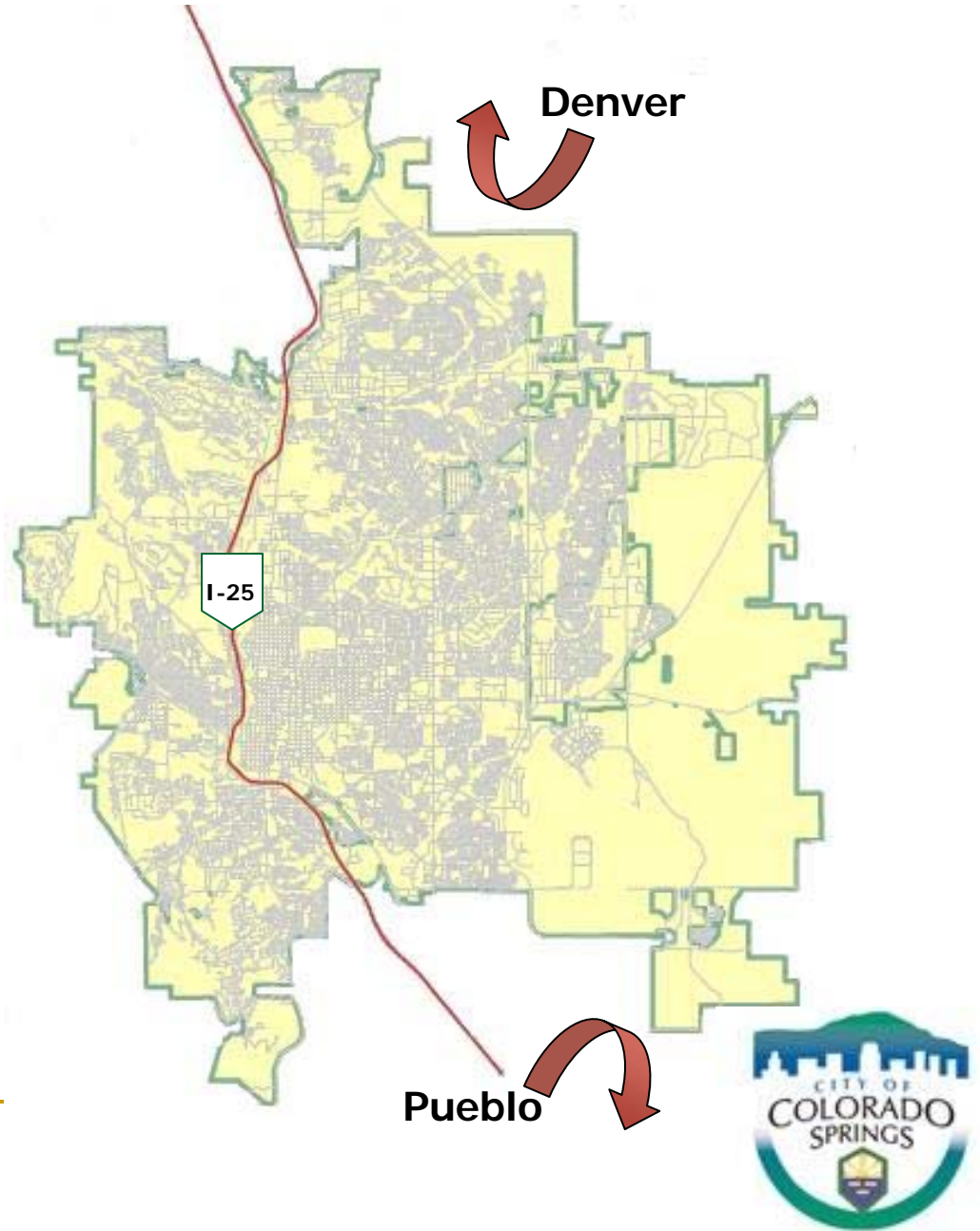
The Colorado Springs Traffic Management Center (CSTMC)

- Coordinates operations with Colorado Department of Transportation
- Monitors and operates Advanced Traffic Management Systems along 28 miles of Interstate 25
- Monitors and operates all traffic signals in the Colorado Springs area (including all on- and off-ramp locations)
- A critical component of Emergency Operations Center during emergency activations.



Map of TMC Jurisdiction

- Population: 400,000
- Square Miles: 186
- Traffic Signals: 564
- Roadway Miles: 1300
- I-25 Miles: 28



Weather Conditions that Affect TMC Operations



Spring/Summer

- High Wind Speeds
- Flooding
- Lightning Strikes (Colorado Springs is one of the most active areas in the United States for lightning strikes.)



Autumn/Winter

- High Wind Speeds
- Heavy Snow Accumulation
- Blowing Snow/Blizzard Conditions
- Extreme Low Temperatures



Average Annual Precipitation: 17.4 inches



Average Snowfall: 44.6 inches



Need for Enhanced Weather Integration



- **Enhanced weather integration will:**
 - **Improve service delivery during adverse weather in the region**
 - **Serve to move the CSTMC away from a reactive operational model and toward a proactive operational model**



Self-Evaluation: the Process

- **Kick off meeting with Weather Integration Group**
- **First cut at Self-Evaluation**
- **Internal meeting with stakeholders**
- **Second meeting with Weather Integration Team**
- **Second cut at Self-Evaluation**
- **Prioritize strategies to concentrate efforts**



Self-Evaluation: the Results

- **Advisory Operations (2 – Medium)**
- **Institutional Coordination (2 – Medium)**
- **Traffic Control Operations (3 – High)**
- **Weather Information Processing and Gathering (2 – Medium)**



Self-Evaluation: the Benefits

- **Helps the TMC identify the:**
 - Weather events that occur in the region and the frequency of the events
 - Impacts of weather events on TMC operations
 - Current use of internal weather information resources
 - Operational needs of the TMC and help prioritize weather information gathering, institutional coordination, advisory functions, control functions and treatment function



The Weather Integration Plan: Key Elements

The CSTMC will prioritize their efforts on
Traffic Control Operations to:

- ✓ **Improve safety at intersections during weather events**
- ✓ **Improve traffic signal timing during weather events to facilitate traffic movement**



The Weather Integration Plan: Implementation of Strategies



Next Steps

- Develop new strategy for Traffic Signal Operations
- Draft Integration Plan around Signal Operations Strategy
- Follow-up meeting with the Battelle Team

